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DAILY DIGEST

Prepared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXXI, No. 1

Section 1

October 3, 1938

**WALLACE
ON COTTON
SUBSIDY**

"In his speech at Fort Worth, Secretary Wallace has disclosed that the Department of Agriculture is at work on plans for subsidizing the increased consumption of cotton," says Ernest Lindley in the Washington Post. "This is an interesting reversal of the traditional idea of promoting additional consumption by subsidizing exports. A subsidy on exports is a subsidy not only to the American producer, but to the foreign buyer. Mr. Wallace suggests that if resort is made to a subsidy, the beneficiaries, on the buying side as well as the selling side, should be American citizens...As Mr. Wallace emphasized, there are millions of families in the United States who lack the clothing, bedding and other household goods which they need. At the same time there is a 13,000,000-bale carryover of cotton, of which the government is already holding 7,000,000 bales as security for loans. In addition, thousands of textile workers are idle. The well-known paradox of poverty in the midst of plenty is especially striking in this case because the plenty already has been produced and a great part of it is already in the hands of the government..."

**WHEAT LOAN
REGULATIONS**

The Department of Agriculture has announced a series of liberalized wheat loan regulations designed to allow farmers to obtain benefits of market premiums on high protein wheat and high quality durum wheat, says an Associated Press report. Farmers will be permitted to withdraw such grain put up as collateral for loans and replace it with wheat of the same general grade of lower protein content. The high-quality grain may be withdrawn at any time to take advantage of price premiums offered by grain markets. The withdrawn wheat would have to be replaced with grain testing at least 12 percent protein.

**FSA FARM
TENANT LOAN**

A 25-year-old Centerville, Md., tenant farmer will stand before an imposing array of Farm Security Administration officials, relatives and onlookers at 2 p.m. today to receive a check for an \$8,500 farm tenant loan, says a report in the Washington Post. The check will enable A. Wilson Dukes and his wife to purchase a 240-acre farm on which his father is now a tenant. It is being granted Mr. Dukes under the provisions of the Bankhead-Jones act, designed to enable farm tenants with neither financial resources nor credit to acquire their own land. Mr. Dukes' loan will run for 40 years with interest at 3 percent. Amortization payments, based upon the income of the farm, will average 4.3 percent annually. The FSA will also make a supplementary loan of \$475 to Mr. Dukes to provide for the cost of repairing farm buildings.

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Forestry Profession "Last June some 1,200 young men graduated in forestry from the schools and colleges of the United States," says an editorial in American Forests (October). "Many of last June's forestry graduates are without employment in their chosen profession--as are others of the previous classes... Their services are needed and the nation should have the benefit of the work for which they are trained. Employment in the Forest Service, National Park Service, Biological Survey, Soil Conservation Service, state forest services, supervisory responsibilities in the CCC, and other state and national agencies has drawn heavily on the forestry profession. But all the forests are not owned or controlled by the federal or state governments. There are some 245,000,000 acres of commercially owned timber lands, and according to the most recent census, 185,000,000 acres of farm owned woodland. The products from these woodlands provided an income to some two and a half million farmers in 1935, the value of which was \$190,000,000. Unfortunately, the majority of these farm woodlands are poorly managed and the income is scarcely a third of what can be expected with reasonable care and protection. The fault lies not wholly in having insufficient information, but in the lack of opportunity to transmit available information, leadership and assistance to woodland owners..."

Iowa Hybrid Corn Crop "Something like half the total acreage of corn land in Iowa was planted to hybrid last spring," says an editorial in the Des Moines Register (September 25). "Most of the reports seem to show that the increased expense for hybrid seed was justified. However, some of the hybrid corn in north central Iowa is said to be proving more susceptible to frost than some of the ordinary open-pollinated varieties. This goes to show what the experts have said all along. Any hybrid seed will cost more, and many have achievements to boast of. But it is worthwhile for an individual farm only if it is good hybrid and well adapted for that particular region... The Iowa Corn and Small Grain Growers Association conducts every year a corn yield test for both hybrid and open-pollinated varieties in 12 fields, 3 in each of the 4 east-and-west sections into which Iowa is divided. Hybrid seed 'certified' by the association must have proved its superiority in lodging resistance, in yield for a specific section over at least two recent years, its purity, quality and germination..."

WPA Work in BBS A report in the Washington Post says that more than 80 WPA workers are employed in the Biological Survey. All their work is such as the bureau's regularly employed personnel had been unable, for reasons of employee shortage or lack of operating funds, to bring to date. The bureau, it was stated recently, has vast files of records, the results of long scientific research, which never had been correlated or brought up to usable form. Some of these records concern the feeding habits of wildlife. The scientists took specimens of the stomach contents of numerous birds and beasts to determine feeding habits and requirements.

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Consumer
Articles

The October issue of Consumers' Digest contains an article on the new food and drug law. The same periodical, in an article on fireproofing fabrics, quotes directions and formulas from Farmers' Bulletin 1786, Fireproofing Fabrics.

Southern
Population

Rural Sociology (September) contains a paper by Carl C. Taylor, in charge, division of farm population and rural life, Bureau of Agricultural Economics. An abstract of the paper--Constructive Measures for Dealing with the South's Population Problems--is as follows: "Constructive measures for dealing with the South's population problems must rest upon the fundamental fact of pressure of population on natural resources. No theoretical discussion will obviate the necessity of utilizing resident natural resources and the maximum efficiency of modern technologies, including education, toward the end of sustaining as large a number of persons on the land as possible. The four general types of adjustment suggested here are: (1) the promotion of balanced farming or a maximum development of live-at-home farming; (2) the expansion of manufacturing processes of many kinds; (3) the encouragement of combined farming and industrial enterprises; and (4) the intelligent guidance of the relocation of surplus population into both farming and industrial enterprises. These suggestions are made with the conviction that they are practical steps which can be taken immediately, for the most part by local people, in a thousand communities in the South."

The same periodical contains a review, by Charles P. Loomis, editor, of Social Research Report No. VIII, by Mr. Taylor and two other workers of the same division, "Disadvantaged Classes in American Agriculture." The report, says Mr. Loomis, "sets forth in bold relief the 'sore spots' in rural life in America. Data marshaled from many sources, with exposition and charts based thereon, drive home to the reader the impression that low incomes, bad lands, tenant and hired labor status and concomitant disadvantaging conditions of low standards of living, dependency and migration are dire circumstances affecting large segments of our agricultural population..."

Yellow Clover
for Honey

Gleanings in Bee Culture (October) comments editorially on the shift from white to yellow sweet clover. "Here in Ohio," it says, "we have noted this change during the past few years. Yellow sweet clover blooms about ten days or two weeks earlier than white sweet clover. This means that beekeepers must have their colonies ready for this flow early, to take full advantage of it. The yellow variety blooms about the same time as alsike and white Dutch clover. We observed this past season that bees would work the yellow sweet clover at times when they would not be found on alsike or white Dutch clovers. It is obvious that an increasing prevalence of yellow sweet clover tends to shorten the major honey flow, whereas the former presence of white sweet clover lengthened the flow...But beekeepers must be ready to adjust their apiary management to these changes."

**European
Wood Use**

The leading article in October American Forests is "Wood Use Trends in Europe," by Carlile P. Winslow, Director, Forest Products Laboratory. He says in the concluding paragraph: "Viewed broadly, and recognizing the changes from one decade to another, it seems that Europe is trending toward a timber cut in excess of timber growth. This, combined with an increasing population and the difficulty of improving the growth from forests already comparatively well managed, indicates why improved utilization is recognized as so important. There seems little possibility that our domestic market will ever be threatened with a continuous flood of cheap European wood. On the contrary, world needs for wood, and especially for softwoods, outside of the United States, are tending to increase and the world's softwood resources are tending to diminish. This gives reason to believe that the United States can increasingly use its forest resources to supply world demands. To do so, however, we must take comprehensive and constructive measures to turn our present and future wastes into economic products."

Home Economics George F. Zook, president, American Council on Education, is author of "Home Economics and Present Proposals for Federal Aid to Education," in the Journal of Home Economics (October). He says: "The recommendations of the Advisory Committee on Education for general federal aid for elementary and secondary education, beginning at \$40,000,000 and increasing by \$20,000,000 each year up to \$140,000,000, do not limit this to the support of the traditional academic subjects. The money may be used for a number of additional purposes of direct concern to home economists, including health, welfare, and recreational activities of children and youth; pre-primary training; vocational guidance; vocational education, including supervision of club work and home projects; placement activities; technical and vocational institutes; and other programs, including those in junior colleges which are operated as parts of a local secondary school system; and, finally, part-time civic, general, and vocational adult educational and recreational activities under the auspices of school systems. This recommendation presents a challenge to the home economics profession. It leaves a community free to use this general fund to supplement existing federal and local funds for vocational home economics if it so chooses; but, more important, it enables a school to develop a comprehensive program of general education without restrictions. Slowly there is evolving a new type of general education today through the secondary school and junior college not directed exclusively to the intellectual needs of a restricted group of young people but to those matters of common concern to the large proportion of young people who seek to understand themselves and the world in which they live in school, college, C.C.C.camps, or N.Y.A.project. To this new conception of general education home economics has a very significant contribution to make if it will prepare itself for the task in co-operation with other groups similarly concerned..."

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Section 1

October 4, 1938

SULFANILAMIDE CASE PENALTY Samuel Evans Massengill drew a record fine of \$16,800 yesterday after he pleaded guilty to charges growing out of 70 deaths blamed on an elixir of sulfanilamide, says an Associated Press report from Greeneville, Tenn. Federal Judge George C. Taylor imposed the penalty after Massengill, a drug manufacturer of Bristol, Tenn., entered a plea of guilty on 112 of the 166 counts charging violation of the food and drug act. The fine represented a \$150 penalty on each of the 112 counts, and District Attorney James B. Frazier said it was the largest ever imposed under the food and drug law. Judge Taylor dismissed the remaining 54 counts, but Mr. Frazier said 62 similar counts were pending in the federal district court at Kansas City, and that the principal charge was "adulteration and misbranding."

POULTRY, EGG SITUATION

The Bureau of Agricultural Economics cited yesterday a larger hatch and increased market and storage supplies as among important developments expected in the poultry and egg situation next year. It added, however, that increases in consumer income would offset, at least in part, the price effect of the larger supplies in prospect for the coming year. The bureau said egg prices had advanced more this fall than they usually do at this time of the year and noted that feed supplies were relatively low in price. This relationship of feed prices to egg prices, it was said, may result in an increase in the number of pullets saved for layers and a larger hatch next spring. (A.P.)

SANITARY MILK CAP

Development of a new sanitary milk-bottle lip intended to correct what long has been the weakest link in bringing healthful milk to the consumer is announced by Dr. Lloyd Arnold of the University of Illinois College of Medicine. When emptying conventional bottles, milk spreads over one and a half to two inches of the pouring lip or mouth of the bottle. The new pouring lip reduces this pouring area to less than one-half inch and reduces the size of the protecting cap by one-half, with a consequent saving to the consumer without sacrifice of sanitary protection. "The weakest link in the sanitary handling of milk is the capping of the bottle," Dr. Arnold explained. "After testing fifteen different designs we obtained a satisfactory bottle which has a pouring lip extending seven-sixteenths inch from the top of the bottle and which does not drip and pours clean..." (Press.)

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N.J.Breeding
Society

New Jersey's Artificial Breeding Society is well under way, with 274 cows having been artificially mated since April 9 to the outstanding proven sire, N J E S Sir Mutual Ormsby Jewel Alice, whose first 13 daughter-dam pairs gave him an index of 4.2 percent fat and in excess of 16,000 pounds milk. On the average his daughters milked more than 1,000 pounds more than their dams and at the same time tested 3.5 points higher in fat. There is a keen demand in another New Jersey county for the organization of a second Holstein-Friesian Artificial Breeding Society and that group is now casting around for a proven sire whose inheritance warrants wide dissemination. (New England Homestead, September 24.)

AAA Fertilizer Applications Applications have been accepted for 62,716 tons of triple superphosphate fertilizer to be furnished farmers in eastern and southern states as grants of aid to be used in carrying out soil-building practices under the 1938 farm program, Agricultural Adjustment Administration has announced. The administration also said it had received to date requests for 9,499 tons of lime and 270,000 pounds of winter legume seed to be used in carrying out soil-building practices. Of the total of 62,716 tons of fertilizer ordered, the AAA is obtaining 35,199 tons from the Tennessee Valley Authority and 27,517 tons from commercial sources. Only a few commercial firms manufacture the fertilizer, it was stated. (Wall Street Journal, September 29.)

Wisconsin TB
Regulations

Modification of its regulations governing the handling of steers brought into Wisconsin is announced by the department of agriculture and markets. For several years, the state has required that all steers brought into Wisconsin, except those brought in on a special permit, be quarantined and retested for tuberculosis. However, in checking the retest records over several years, no evidence has been found that the steers have reacted to the retest, so it has been dispensed with. The regulations also have been modified so that it is now possible to transfer feeder steers brought into the state under a permit from one owner to another having a similar permit to maintain such steers in quarantine. (Wisconsin Agriculturist and Farmer, September 24.)

Light Traps
for Insects

"Experiments conducted over five years with insect electrocuting traps in a number of grape growing centers in California hold promise for the satisfactory control of the grape leaf hopper, the major pest on 300,000 of the state's 550,000 acres of vineyard," says California Cultivator (September 24). "Results of the long series of experiments were recently announced by Prof. W. B. Herms, chief entomologist, and J. K. Ellsworth, assistant entomologist, in the California Experiment Station. Not only have the lights proved their effectiveness, but their cost, both for installation and maintenance, is a comparatively small proportion of the cost of normal control otherwise. On small plantings of six to ten acres, average installation cost has been determined at \$35 an acre, which includes automatic control...The cost of

(Light Traps for Insects-continued)

the normal control program in these small plantings ranges between \$80 and \$100 a year. As time progresses, the maintenance alone becomes the main expense for the light traps, and the cost is decreased accordingly. In the university experiments, while the results were somewhat variable, due to differing conditions, it was found that the lights were generally more effective than other types of control..."

Rural Housing An abstract of "Rural Housing Problem in the South," in the South by S. H. Hobbs, Jr., University of North Carolina, in

Rural Sociology (September) says: "The rural housing problem in the South is one of long standing. Chief factors responsible for this problem are climate, farm income, high Negro ratios, farm tenancy, and small farms. The rural housing problem has received scanty attention, at home and abroad. Main sources of information are 1930 Census of Agriculture, 1934 Survey of Rural Housing, and a few local studies. There is a vast amount of literature on urban housing and many countries are spending vast sums to remedy urban housing problems. Much pessimism exists as to possibilities of remedying rural housing conditions, especially for low income farm groups. The main suggestions are to subsidize housing for low income groups, extend F.H.A. into rural fields, carry on work begun by Resettlement Administration, expand the program of the Farm Security Administration, and encourage self-help among farmers themselves through educational programs and otherwise. An outstanding accomplishment abroad has been the erection of some 60,000 cottages for Irish farm laborers. Their plan, modified, could be employed as a partial solution to our rural housing problem."

Equine Encephalo
in Man

The Rockefeller Institute announces that an outbreak of human sleeping sickness in southwestern Massachusetts has been traced to horses. This is the first time horses have been definitely implicated as causes of human encephalitis. The horses in southwestern Massachusetts have been dying of encephalomyelitis, a well-known animal disease, resembling human sleeping sickness, but not heretofore known to be the same. The horse disease is caused by a virus of the same kind found in the brains of five children who died of sleeping sickness in the disease area. The report is made in the publication Science (September 30) by Leslie T. Webster and F. Howell Wright of the institute. Viruses are the known cause not only of human sleeping sickness, but of other serious diseases. These viruses virtually disappear in the intervals between the human epidemics. Medical scientists have been trying to find the hiding places, with the idea they could prevent epidemics. The sleeping sickness discovery is evidence a virus can modify its form and hide among the animals. (Associated Press.)

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Hawaii's Food Supply Joseph Barber, Jr., author of "Hawaii Counts the Cost," in Atlantic (October) says in part: "Two years ago the Hawaii Agricultural Experiment Station, under the joint supervision of the United States Department of Agriculture and the University of Hawaii, conducted a detailed survey of all farms cultivating crops other than sugar cane and pineapples, and found that truck crops occupied less than 2 percent of the Territory's arable land. This small part was composed mainly of second-rate and marginal lands tilled by tenant farmers, and averaging less than five acres in extent. Sums have been appropriated from sugar-processing taxes and from territorial funds to develop truck farming and to improve local marketing facilities for farm products. As yet, however, there has been no co-ordinated effort at diversification related to a necessarily new form of distribution. Dr. O. C. Magistad has stressed the fact that, since a large part of the truck crops consumed in the Territory are shipped in from the mainland, many wholesalers today have standing orders for mainland shipment. This factor, together with the uncertainty as to quantities of truck crops available locally, induces the wholesaler to continue shipments from the mainland, rather than to plan on partial and uncertain delivery from local growers... H. H. Warner, director of the Agricultural Extension Service, University of Hawaii, has suggested two practical methods by which the Islands could produce more of their own food; the use of public funds for the development of cheap water for irrigation, which would result in the increased production of food on land without sufficient rainfall; a direct cash subsidy, justified on the basis of national defense, to return present wet-land areas to rice or taro..."

Grain Exports Increase The first half of 1938 was a period of tremendous increases ^(over that of 1937) in grain exports--wheat, wheat flour, corn, rye, barley and other farm products--the United States Chamber of Commerce reported recently. Leading farm commodities doubled and quadrupled over previous figures, the wheat ^(grain) being more than 3,000 percent. Even more outstanding was the 11,000 percent gain in oats, while rye and barley increased 1,000 percent and 500 percent respectively. Crop shortages, seriously felt in most of the wheat raising countries abroad, unlike United States, were believed to be responsible for the great export gains. "For the first time in several years this country has had available for export large surpluses of farm products, especially grains," the report said. "Coming at a time of crop shortages abroad, our exports of various agricultural commodities have loomed unusually large and have been the outstanding feature of our 1938 six month's trade. (The Northwestern Miller, September 28.)

Rural Radio A new accession to the Periodical Division of the Department Library is Rural Radio, "the only magazine published exclusively for rural listeners." Volume I, No. 1, of this appeared last February.

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Section 1

October 5, 1938

GOVERNMENT REORGANIZATION Increased appropriations for the federal establishment or enactment of his government reorganization plan were suggested by President Roosevelt yesterday as the only remedies for the excessive overtime and arrearages in work in the government agencies in Washington. The President said in response to press conference questions that it was true that employees in several agencies were required to stay overtime and that much work was behind schedule because of inadequate appropriations and the failure of Congress to pass the government reorganization bill which would have eliminated duplication of effort. (New York Times.)

U.S. GRAIN AT SEASONAL LOW Eclipsing of season low-price records formed the rule in nearly all grains yesterday, with corn touching new bottom levels unreached before in five years. Wheat in Chicago fell $1 \frac{3}{8}$ cents a bushel maximum and corn $1 \frac{3}{4}$ cents. Unusually large movement of old corn to market so as to make crib room for the new harvest served as a particular burden on corn values. Another notable unsettling influence was an estimate that the world carryover of surplus wheat into the 1939 season would achieve the huge total of 1,070,000,000 bushels. (Associated Press.)

EXPORTS IN AUGUST The export trade of the United States with Europe held up well during August compared with the same month in 1937, the Department of Commerce reported yesterday. in an analysis of figures for that month by countries. Total exports were \$230,621,000, against \$277,031,000 a year before, of which Europe took \$102,995,000, against \$104,358,000. Imports by the United States of European goods for the respective periods were \$49,366,000 and \$67,906,000. Soviet Russia continued to buy more from this country, as it has done through every month of this year. The biggest drop in exports was to Asia, both Japan and China purchasing less and less goods as hostilities between them continue. Exports to South America fell from \$27,589,000 in August of last year to \$20,196,000 this year. (Press.)

CANADA'S TRADE "So far as Canada and the United States are concerned, we have practically reached a new trade agreement," said Prime Minister Mackenzie King after a Cabinet meeting yesterday; but he admitted that before final conclusions could be reached they might have to wait for the projected Anglo-American treaty. (New York Times.)

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Consumer Consciousness Dayton D. McKean, writing in the Forum (October) under the title, "Your Money's Worth," says: "There can be no question that the consumers of the United States--and that includes all of us--have been defrauded of billions of dollars in the purchase of defective, useless, even harmful goods and in the payment of prices which have been inflated by advertising and kept up by trade agreements. A perusal of the notices of judgment of the Food and Drug Administration in its proceedings against putrid food in interstate commerce is enough to make any consumer sick...The money that has been paid by consumers for well-advertised but useless mouth washes, antiseptics, and patent medicines would double the endowment of every college in the country. Time was when the consumer was simply told to beware, caveat emptor. The seller was expected to guarantee only his own title to the goods he offered for sale. The number of items available was small; the quality of most of them was readily ascertainable by ordinary means; many of them were prepared or manufactured in the presence of the customer; and there was usually a personal acquaintance between buyer and seller. But the ability of consumers to check price and quality has progressively diminished as large-scale production has increased and as the arts of production have become more complex. Merchants themselves frequently know little or nothing about what they are selling. The ordinary individual, for example, cannot test electric refrigerators to determine which one among them all is best insulated, least expensive to operate, least dangerous, or freest from mechanical troubles; he can only depend upon advertising for advice, a form of guidance which may be no more valuable than any other picture of a pretty girl standing by the latest streamlined model. Consumers are gradually becoming conscious of their helplessness in present-day markets, and there is a growing demand among them for assistance..."

Railroads Trucking The Interstate Commerce Commission has re-affirmed its policy of restricting trucking operations by railroads to auxiliary service at points on their rail lines. This policy was expressed in a decision by the motor carrier division of the commission in which Union Pacific, Chicago & North Western and the Burlington were denied authority to acquire joint control of Union Transfer Co. by purchase of all its capital stock. Commissioners Eastman, Caskie and Rogers agreed that the applicant railroads were seeking to develop a railroad-owned trucking system in territory which they serve for the purpose of providing highway service both in coordination with, and independently of, train operations. (Wall Street Journal, October 3.)

Vegetable Cooking Study Elizabeth Fuller Whiteman and Florance B. King, of the Bureau of Home Economics, report in the Journal of the American Dietetic Association (October) on a study regarding waste in preparation and cooking of fresh vegetables and fuel consumption. They say in summary: "In this study data are presented

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Vegetable Cooking Study (continued)

in tabular form on the weight of 25 cooked vegetables from one pound of as-purchased material. The waste in preparing the vegetables for cooking gave the following groupings: The vegetables that lost 64 or more percent were corn, Lima beans, and peas; 45-64 percent, kale, spinach cooked without the leaf stalks, and Hubbard squash; 35-45 percent, asparagus, turnip tops, celery, cauliflower, and Brussels sprouts; 20-45 percent, beets boiled whole, beet tops, baked potatoes, spinach cooked with the leaf stalks, and parsnips; 15-20 percent, broccoli, beets diced before cooking, and cabbage; 10-20 percent, potatoes and turnips pared before cooking, eggplant and cymling squash. All the other vegetables lost less than 10 percent. Results are also tabulated on the change in weight of the vegetables during cooking and the cooked weight of one cup of each vegetable. The fuel consumption when 24 vegetables were cooked by gas and electricity was obtained. It required a longer time to heat the same quantity of water to boiling by electricity than it did by gas. Fewer British thermal units were required to heat small quantities of water by gas than by electricity but as the quantity of water increased there was a reversal in favor of electricity. After the boiling temperature was reached the British thermal units required to maintain that temperature for cooking each vegetable were greater by gas than by electricity, with one exception."

Crop Surplus Utilization Increasing use of agricultural products by industry promises a more balanced demand for farm products and minimizing of the surplus crop situation, said Prof. H.R. Kraybill of Burdue University recently. "For many years," Dr. Kraybill said, "agricultural scientists have been interested in the possibility of developing industrial uses for agricultural products. Some of the very first projects undertaken when the United States Department of Agriculture was organized dealt with this problem. During recent years more widespread interest has developed as exemplified by the recent congressional action to establish four regional research laboratories. The fields for developing industrial uses for agricultural products may be classified into three groups: First, the utilization of waste and by-products from crops; second, the introduction of new crops to yield products to take the place of those now imported and used for industrial purposes; and, third, the development of new uses for crops or crop surpluses for purposes other than food..." (Northwestern Miller, Sept. 28.)

Ark. Forest Festivals An Associated Press report from Little Rock, Arkansas, says that the state foresters have revived forest festivals. They supervised contests in shoe-kicking, wood-chopping, sawing, nail driving, watermelon eating, hog-calling and rolling-pin throwing, and gave illustrated lectures on preventing and fighting forest fires. "We didn't want people to think of the Forest Commission as a policeman," says David Campbell, assistant forester. Figures show 45,000 folks attended the series of eighteen festivals in recent months. Figures also show only .14 of one percent of 11,670,000 acres of forest was damaged the first six months of 1938--five years ago the damage was 8 percent.

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Science and Sociology In "Science Sees the Way to Serve Society" in the New York Times Magazine (October 2) the author, J.D.Bernal, University of London, comments on the new division of the British Association, that of Social and International Relations of Science. He says in part: "There are throughout the world probably not fewer than 300,000 working scientists; there are at least 33,000 scientific periodicals. In England alone there are probably about 40,000 scientists, not counting teachers, and 4,000 students take degrees in science every year. The budget of scientific research apart from military and technical science is of the order of 4,000,000 pounds. This seems a large expenditure, but it is very small in relation to the importance of science in the general economy. The expenditure in England represents less than one-tenth of 1 percent of the national income. In the United States expenditure on science is believed to be \$300,000,000, but even this represents only three-tenths of 1 percent of the national income. And this is what is spent on the work that is responsible for the increase of this national income something like tenfold in the last seventy years. The social returns on science are enormous, but it is extremely difficult to get any detailed account of them. The best that can be done on figures prepared by the British Department of Scientific and Industrial Research shows that of a total expenditure of some 50,000 pounds on scientific research the average return was 800 percent per annum, and rose in some cases to as much as 10,000 percent. The apparent paradox of such a profitable investment being chronically short of funds is removed when one remembers that the returns on science are made socially and not solely to the investors, unless these are in a monopoly position. In this case they have little incentive to develop scientific research."

Rabbit Hutch "An excellent type of all-metal rabbit hutch is in use at the U. S. Rabbit Experiment Station at Fontana," says Pacific Rural Press (September 24). "Floor is made of perforated metal sheets. Nesting box is made of an ordinary nail keg with a short board nailed across the open end. Water vessel is sanitary and easily accessible for cleaning. There is a wire basket in which the babies are kept during hot days. By 'hanging them up to cool,' very few losses are experienced during the hottest weather."

Grasshopper Warfare According to a Winnipeg report in the Northwestern Miller (September 28) officials of western Canada's provincial governments have expressed their willingness to cooperate with United States organizations in a joint international war against the grasshopper menace for next year. Hon. J. G. Taggart, minister of agriculture for Saskatchewan, stated that there would be no difficulty in securing the cooperation of the three prairie provinces and that he had already asked S. H. Vigor, field crops commissioner, to contact United States authorities.

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Vol. LXXI, No. 4

Section 1

October 6, 1938

NEW ENGLAND

CROP DAMAGE

A preliminary survey made public yesterday by the Bureau of Agricultural Economics said crop damage in the New England flood and hurricane would run into millions of dollars. A loss of at least \$2,000,000 was suffered by the tobacco crops of that area. The quantity loss was placed at 6,000,000 pounds. Some of the tobacco not actually destroyed was damaged and the quality of other parts of the crop was lowered. Onion growers estimated their loss at 300 cars, or approximately 150,000 bushels, out of a total crop forecast of about 1,250,000 bushels. Though most of the onions had been harvested, thousands of bushels remained in the fields in crates and sacks and were either damaged or destroyed. Irish potatoes had been harvested prior to the storm, but rising waters covered and destroyed hundreds of acres of late potatoes in the ground. Yields outside the flood areas were expected to be curtailed materially because of rot caused by the heavy rains. About 4,000,000 bushels of apples, or more than a half of the estimated New England production this year, were blown from trees. Some of these were salvaged, but it was feared most would be lost because they could not be absorbed by the market before rot set in. Very heavy damage was done to fruit trees. About a fourth of the apple trees in the area were damaged, with a loss of about 10 percent in value. Pears and peaches also suffered. (New York Times.)

RURAL LIBRARY SERVICES

The President's Advisory Committee on Education reported yesterday that three-fourths of the country's rural population has no public library service. The nation's book resources vary from state to state, the report said. In Massachusetts and Delaware, libraries are available to 100 percent of the population, while in West Virginia only 12 percent have access to library books. The Northeast and Far West are in preferred positions, it was added, while the southern regions are low in every type of library service. (Associated Press.)

FSCC BUYING

The Federal Surplus Commodities Corporation announced yesterday that in the last fiscal year it had spent \$47,400,-000 for surplus foods and had issued food supplies to 2,500,000 families. (Washington Post.)

October 6, 1938

Dust Explosion Prevention Additional research to protect firemen against explosions of solvents, gases, and vapors, now being developed for processing agricultural products, and to make these essential operations more safe, was advocated by Dr. David J. Price of the Bureau of Chemistry and Soils in a recent address before the International Association of Fire Fighters. Delegates were told that extensive losses have occurred in every section of the United States from dust explosions and fires in connection with the handling, milling, and processing of farm products. In the last 20 years about 400 of these dust explosions have occurred in this country, resulting in the death of more than 300 persons, injuries to 700 others, and property losses in excess of \$28,000,000. Dr. Price stated that if firemen could be told what to do when dust explosions and fires occur in industrial plants, their safety could be greatly increased. (Journal of American Insurance, September.)

Test Plots
for Seed

For more than half a century the Federal Government has expended many millions annually for improvement in the quality of grain grown and an increase in the yield per acre. Agricultural schools and experiment stations throughout the land have accomplished much in helping farmers to surer and better results but still the routine tillers of the soil have persisted in the careless selection of seed. Recently observing students of farm activities have aroused a deep interest in the selection and planting of pure varieties adapted to the soil and climate by gathering samples of wheat from neighboring farms and planting test plots thereby giving growers ocular demonstration of the practicable selection of seed best suited to their use. Crop improvement associations and elevator operators are establishing test plots for wheat and inviting all farmers of the district to inspect the results and listen to agronomists. The farmers who have persisted in planting any old seed have been amazed by superior results obtained through the careful selection of better seed and its cleaning, grading and treating. (The Grain & Feed Journals, September 28.)

New Sweet
Clover

"One of the most promising plants in our test plots this season is a new sweet clover sent to us by T.M. Stevenson, of the Experiment Station at Saskatoon, Saskatchewan," says an editorial in American Bee Journal (October). "Planted in April it was in full bloom in August. The farm crops men who came have all been enthusiastic. They say it overcomes the common objection to sweet clover because it lacks the coarse stems. In flower and leaf it resembles the common sweet clover and is apparently as attractive to the bees as any other strain. From Stevenson we learn that the plant will probably be named and released for distribution soon...Judging from the behavior of this new sweet clover in our test plot we regard it as an outstanding addition to the bee pasture of this country. It seems to have all the advantages of Hubam without the coarse stems which so many farmers object to with that plant..."

October 6, 1938

Engineering
Services

"Dr. Thorndike Saville, dean of the New York College of Engineering, calls attention to the need for a new kind of administrative engineering service in many of the recently established Federal and municipal agencies," says an editorial in the Washington Post (October 4). "He mentions housing, flood control, power development and soil conservation as examples of the problems with which these new agencies deal. Such organizations undoubtedly require the services of expert engineers with first-rate technical training. But they also need men who are acquainted with the social problems underlying many of the physical improvements undertaken by modern government. Consequently Dr. Saville concludes that it would be desirable to expand the engineering curriculum to include courses in economics, labor and social problems, finance and administrative practices...It may be that two kinds of engineers are required on many of our public projects--one group trained for purely technical work and another for what Dr. Saville calls administrative services. Highly specialized skill is needed for the actual work of planning and construction. Even more important, however, is the service of men with sufficient diversified training to give the experts intelligent advice about how to achieve the social and economic objectives of the projects they are developing."

Food and
Drug Law

The Journal of the American Medical Association (October 1) contains an editorial commenting on the new food, drug and cosmetic act, the recent rulings and seizures of the Food and Drug Administration and the jurisdiction of the Federal Trade Commission over advertising. The last paragraph says: "The medical profession will follow with interest the further work of the Food and Drug Administration and the Federal Trade Commission since they have been fortified with new laws to combat deception. Some time may elapse before the courts will pass judgment on the new laws; until this is done their exact status will not be known. The medical profession will always be found solidly with the government in its protection of the public against the exploiters of impure or harmful foods, drugs and cosmetics."

Unshrinkable
Wool Patent

American soldiers may soon be wearing uniforms made from specially treated wool which will not shrink even when washed in hot water, says a report in the New York Times. This is the possible result of a new method for making wool unshrinkable, developed by three War Department chemists. The method is revealed in two patents which are based on the discovery that when wool is immersed in tertiary amyl or butyl hypochlorite, chemicals related to bleaching powder, it becomes unshrinkable. The treatment, the inventors say, does not damage the wool. The inventors permit the government to use their inventions without the payment of any royalties.

October 6, 1938

Rayon, Plastics "Two rapidly growing industries in which the cotton-in the South producing South has a large stake are the manufacture of rayon and plastics," says an editorial in the San Antonio Express (September 28). "During the past decade rayon production increased from 75 million to 321 million pounds, and science continually is finding new uses for the product. For example, some automobile-tire makers now are using rayon instead of cotton cords in casings...The various rayon textiles have been vastly improved and the demand for them increased...The output of plastics has more than doubled in the ten years between 1927 and 1937...Plastics have attained a permanent place in numerous major industries and are used by many million persons every day...At first glance it would appear that plastics and rayon--particularly the latter, as it is employed mainly in textiles--compete for markets with the South's cotton and forest products; but that is not the case. To the contrary, they open new possibilities for those commodities. Both rayon and plastics are composed principally of cellulose, which in turn is the main ingredient of cotton and wood..."

Production Credit Laws "Loans to farmers from production credit associations reached a 5-year high of \$183,000,000 outstanding at the mid-point of the 1938 financing season," Production Credit Commissioner S. M. Garwood said this week at a conference of the twelve production credit corporations. Garwood said the 535 associations making crop and livestock production loans on a cooperative basis in the 48 states now have over 260,000 farmer-members. The largest amount of loans was outstanding in the Spokane district--\$26,000,000--including Washington, Oregon, Montana, and Idaho; and the largest number was in the Columbia district which covers the Carolinas, Georgia, and Florida.

N.C. Aerial Mapping Economy, accuracy, and speed are the main considerations in using aerial photographs of North Carolina farm-land to check growers' compliance with the agricultural conservation program, said H. A. Patten, AAA state compliance officer at State College. The AAA has 12,687 pictures covering 36,989 square miles, or 76 percent of North Carolina's land area, that are being used to determine how many acres of cotton, tobacco, corn, wheat, lespediza, and other crops were grown this year. The various fields, roads, ditches, creeks, trees, homes, barns, power lines, and other objects show up plainly. Patten emphasized that the measurements can be made so exactly that no error will exceed $1\frac{1}{2}$ percent. Many of the calculations run so close that it is hard for a good surveyor to detect any error at all. Before the system of picture-mapping was adopted generally, surveyors made a careful check on the results, and it was found that this method is much more accurate than that of having men on the ground measure fields with tapes. Many of the counties were mapped in the past 18 months by aerial photographers working under contract to the AAA. The AAA has also secured pictures that were taken by the Soil Conservation Service, the U. S. Forest Service and the Tennessee Valley Authority. (Raleigh News & Observer, September 26.)

DAILY DIGEST

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Vol. LXXI, No. 5

Section 1

October 7, 1938

DEPARTMENT REORGANIZATION Major changes in the organization of the Department of Agriculture, designed to expedite the services of the department to the public and to unify lines of work which have assumed paramount importance as a result of New Deal legislature were announced yesterday by Secretary Wallace, says a report in the New York Times. Under the new plan of organization, four phases of the work of the department are coordinated. The Bureau of Agricultural Economics is charged with the responsibility of formulating programs and plans to guide the entire group of agricultural adjustment, conservation and marketing services to farmers and the general public. The changes make this bureau one of the most important and powerful in the department. A director of marketing and regulatory work becomes responsible for the supervising of four units concerned with the marketing activities. The Soil Conservation Service takes over the execution of all physical land-use programs which involve operations by the government on farm lands. Unified direction is provided for research work in the field of agricultural and industrial technology. The organization plan is partly the result of an agreement reached last July with the Association of Land Grant Colleges, under which the colleges are formulating plans which will give farm people a voice in correlating and localizing agricultural programs. The agreement pointed out that new procedures and institutions must provide for analysis, planning and program building, beginning in the communities and extending to county, state and national levels.

GREAT PLAINS FARM REPORT The National Resources Committee reported to President Roosevelt yesterday that the only hope for the ^{Northern} Great Plains area lay in sweeping changes in the type of agriculture practiced there. An eleven-member subcommittee, which studied the problem confronting the Dakotas and parts of Montana, Nebraska and Wyoming as a result of seven years of drought, asserted: "A type of agriculture suited to the climate, topography, soils and natural vegetation, involving in general larger operating units, a judicious combination of grazing and feed-crop production, and, so far as practicable, supplemental irrigation, should replace the cash-grain and small-scale stock rearing types in the many areas where the latter has failed and cannot succeed." The drought and failure of the present farming system have so seriously disrupted economy in the area, the group added, that "another period of normal or supernormal rainfall, however desirable, would not alone insure stability." (Associated Press.)

October 7, 1938

Seed and Feed Cooperation The rapproachement between state experiment stations, state feed and seed control officials on the one hand and the seedsmen and feed manufacturers on the other hand in Ohio, Kentucky, New York, and California and last month between the Michigan Department of Agriculture and the Michigan Bean Shippers is a pleasing augury of future co-operation of these agencies for the common good of the farmer and the seedsman and feed mixer. The research workers of the manufacturers are doing a work paralleling that of the experiment stations, while the state seed councils get seedsmen and state officials together directly. (The Grain & Feed Journals, September 28.)

Forest Fire Prevention An interesting report has been issued by the National Fire Protection Association concerning activity looking toward fire waste prevention and conservation of forest areas. An educational committee was named to assemble and produce informative material showing how forest fires might be prevented through public education dealing with the possibility of reduction of hazards to life and limb and property through a definite campaign to reduce the number of fires. Another committee gave its attention to legislation designed to provide needed prevention measures and control of forest fires. A third group took up the matter of interesting manufacturers and engineers in the development of equipment for fire detection and suppression and to serve as a clearing house for ideas. These three activities have been well coordinated and the public generally has been acquainted with the need of obeying rules and regulations by campers, hunters, fishermen, smokers, forest laborers and those who set off fireworks and hot air balloons. Special suggestions have been made for the construction and use of fire breaks, advice given on building regulations, temporarily closed seasons are advocated for camp fires, and permits for camp fires and rubbish burning are discussed. (Journal of American Insurance, September.)

Canned Navel Orange Juice "A California company will soon announce canned navel orange juice," says Business Week (October 1), "made possible by the work of the California citrus co-op's research laboratories. Mechanical and chemical methods isolate and remove the bitter substance which has made the juice unpalatable when canned. The season for Valencia oranges, whose juice has long since been canned palatably, runs from May to December; navel production runs the other six months. The new process will permit canners to spread their orange juice pack over the entire year..."

Sugar Cane Harvester Business Week (October 1) contains a short illustrated item on a newly invented sugar cane harvester. "In a two-day public test," says Business Week, "this harvester, powered by an ordinary tractor, trundled down roads, climbed in and out of ditches, cut through a field of twelve-foot cane, topping, stripping and bunching the stalks at the rate of a ton every three or four minutes--the work of 50 men."

October 7, 1938

Vermont Apple Crop. The apple crop in Rutland county, Vermont, expected to be from 10 to 25 percent less than the 1937 crop, was little damaged by the recent storm as compared to other sections of New England, it was learned from a survey of apple growers in the county. Sherman Allen of Fair Haven reported only a few apples knocked to the ground and few trees damaged. His crop, he said, will be 10 percent of last year's crop. Allen, who is Vermont director of the New York and New England Apple Institute, stated it is estimated that for the state as a whole the 1938 crop will be from 15 to 20 percent of the normal crop. (Rutland Herald, September 30.)

USDA Cotton Committee Appointment of a committee in the Department to develop cotton consumption in this country, especially among people of low incomes who need more cotton goods, is announced by Secretary Wallace. In his speech at Fort Worth, Texas, he said that President Roosevelt is taking a deep interest in efforts to get more cotton into consumption, and approved setting up the committee. It consists of the following persons: Harry L. Brown, Assistant Secretary of Agriculture; Mastin G. White, Solicitor; and Jesse W. Tapp and Alfred D. Stedman, Assistant Administrators, I. W. Duggan, Director of the Southern Division, and Lawrence Myers, chief of the marketing section, AAA.

Wildlife Articles. Col. H. P. Sheldon, Chief, Division of Public Relations, Bureau of Biological Survey, is author of "The Gentle Art of Squirrel Shooting," in Country Life (October). This is in addition to the regular Country Life department he conducts, "Guns and Game". Another article of interest to wildlife conservationists is "Planting for Wildlife" by Raymond S. Deck. "Plant common, friendly subjects whose fruit is relished by wildlife," says a legend to the photographs, "and you will simultaneously create lovely landscape effects."

Bookmobile in Georgia "A traveling library employing WPA and NYA workers is in operation in Thomas County, Georgia, serving several hundred readers regularly," says Rural America (September). "The Works Progress Administration, citizens of Thomasville and Thomas County authorities are cooperating in the undertaking. Following a definite route, with regular schedules, a specially equipped truck visits all sections of the county, reaching rural districts whose inhabitants previously had done little reading for lack of funds for magazines and books. Now these rural readers have access to the best of fiction the library affords. Through cooperation of the Thomas County school authorities, the traveling library supplements the shelves of the rural school libraries. Some of the smaller schools do not have libraries and their only supplemental reading material comes from the traveling unit."

October 7, 1938

Merit System . . . The Civil Service Commission has announced that Extended approximately 81,000 Government employees will be brought into the classified or merit system next February 1, pursuant to the executive order issued by President Roosevelt last June 24. The status of 44,000 others still is being studied by the commission for possible inclusion in the merit system. Those to be covered into the competitive classified service include all employees in the Government's executive branch who are not now in the classified service, except those expressly exempted by statute and those requiring Senate confirmation. The employees who will thus be brought into the classified service will not be compelled to take open competitive examinations for their jobs. It will be necessary, however, for them to be recommended for permanent status by their administrative officers, to be able to show at least six months' satisfactory service and to pass a non-competitive examination prescribed by the Civil Service Commission. (Baltimore Sun.)

AAA Tobacco Tax Suit Judge W. C. Harris has continued the suit against the Agricultural Adjustment Act until October 11 and ordered warehousemen in four tobacco belts to impound tax collected for the marketing of excess tobacco and to hold it until he hears the crop control complaint. The restraining order, "in the nature of a temporary order," will prohibit warehousemen in the flue-cured sections of North Carolina from remitting the tax collections to the Secretary of Agriculture until the 600 complaining farmers have presented their case. Plaintiff farmers have named 351 warehouses in their action for an injunction against enforcement of the AAA until they have fought the constitutionality of the act through the U. S. Supreme Court. (Raleigh News & Observer, September 28.)

Dust Power Predicted Harnessing of corn dust to operate machinery was forecast recently by Dr. David J. Price of the Bureau of Chemistry and Soils, expert and authority on dust explosions, says a report in the New Orleans Times Picayune (September 27). At the convention of the International Association of Fire Chiefs, he disclosed that Department of Agriculture officials have succeeded in turning over a motor with dust as a fuel. "Naturally we have been impressed with the fact that dust when mixed with air under certain conditions is explosive," he explained. "We believe we can take this dust and harness its combustive powers and use it as a fuel to operate machinery as a substitute for gasoline. German chemists have succeeded in making gasoline out of coal and are using mineral dusts for fuel. Agricultural dusts are more combustible even than mineral dusts and in time we may develop a substitute for gasoline from them...The finest particles of dust probably will never equal in size a molecule of gasoline," he said, "but now we don't get complete combustion from gasoline. Dust explosions produce complete combustion and if we are ever able to run engines with dust we won't have the difficulties of exhaust vapors or carbon monoxide which are generated by gasoline."

DAILY DIGEST

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Vol. LXXI, No. 6

Section 1

October 10, 1938

COTTON CROP,
PAYMENTS

The Federal Crop Reporting Board forecasts a cotton crop of 12,212,000 bales, based on conditions as of October 1. This was an increase of 387,000 bales over the September 1 forecast. Such a crop would compare with 18,946,000 bales harvested last year, the largest on record, and 13,201,000 bales for the 1927-36 average. The Census Bureau reported cotton of this year's growth ginned prior to October 1 totaled 6,578,313 running bales, compared with 8,260,-071 for last year and 6,031,950 for 1936. (Associated Press.)

An A.P. report also says that Secretary Wallace reiterated, in a letter made public after the Crop Reporting Board had forecast an unexpectedly large increase in this year's cotton crop, that new processing taxes should be enacted to finance subsidy payments to cotton growers. His letter, addressed to Senator Smith, of South Carolina, replied to demands of a group of southern members of Congress for an additional federal subsidy of 3 cents a pound on this year's cotton or an increase in the rate of federal loans on the crop.

AAA TOBACCO
SUIT RULING

A three-judge federal court has ruled that tobacco farmers who oversell their marketing quotas may be validly "penalized" under federal crop marketing provisions, says an Associated Press report from Macon. Judge Samuel H. Sibley, of Atlanta, said in the opinion that if regulation of marketing of crops is needed, Congress has the authority, and not the states. The tobacco marketing act, he ruled, deals only with planting and production. The suit was brought in the Valdosta, Georgia, Division of Federal Court by a group of producers against Nat Smith, Agricultural Adjustment Administration official.

"AGRICULTURAL
STATISTICS"

The 1938 volume of "Agricultural Statistics" has come from the press and is being distributed. This year's book contains about 55 more pages than the edition of last year. A large number of new tables were included in the section on fruits and vegetables, giving an historical series of basic statistics for all of the commercial truck crops. The 1938 volume also contains additional tables on feedstuffs, cotton, sugar, miscellaneous crops and farm business, as well as a number of new tables relating to the Soil Conservation Service. Department workers may obtain this from their respective bureaus.

October 10, 1938

Sweet Potato
Electric
Curing

M. M. Johns, Tennessee Extension Service, author of "Sweet Potato Profits by Electric Curing," in Electricity on the Farm (October) reports that "sweet potato storage houses are being converted from stove heat to automatic electric heat with a resulting increase in percentage of marketable potatoes, improvement in quality and better bank account." "A 2,000-bushel house was constructed in 1927," he says, "at the Junior College at Martin, Tennessee, according to plans recommended by the U.S.D.A. It was heated by a coal burning stove located near the center of the building. In 1936, six 1,000 watt strip heaters were placed over the ventilators cut in the floor and twelve 500 watt strip heaters were spaced uniformly over the remaining floor surface. This made a connected heating load of 12 kilowatts. The storage capacity was increased 400 bushels by removing the stove. The cost of the installation was \$160.00. The power consumption for the season (October 14, 1937 to March 11, 1938) was 1,960 kilowatt hours. A total of 2,183 bushels were stored at the rate of less than one kilowatt hour per bushel. The average percentage of good potatoes taken from the electrically heated house was 95.8 percent as compared with 89.1 percent for potatoes cured and stored in conventional stove heated houses."

Interstate
Trucking

"New factors, often unexpected, continue to arise to complicate the economy of the food industries and to perplex those whose daily task is to cope with the problems of distribution," says Food Industries (October). "Such problems are typified by the extreme variations of permissible gross weights of vehicles on highways in various states. To illustrate: If a truck shipment originates in Chicago, where the Illinois law permits 72,000 lb. gross weight, and heads for Tennessee, it will be 300 percent too heavy to meet the 18,000 lb. stipulations of Kentucky or Tennessee highway regulations. Rhode Island, which can be traversed by an auto in less than an hour, permits gross weights of 120,000 lb., whereas adjacent Connecticut permits only 40,000 lb., a third as much. Kansas has adopted a port of entry system (now duplicated by most of the surrounding states) where 'foreign' trucks must enter at any one of the 66 stipulated ports of entry, there to pass all manner of inspection of equipment and papers. The method is costly, vexatious and time-consuming--and it is changing the character of such commerce from interstate to intrastate. The U. S. Department of Agriculture believes that such vagaries as the foregoing are rather detrimental to farmers..."

Shaw Water
Lily Farms

The Shaw water lily farms, which lie just outside Washington, will become public gardens through a recent purchase by the government. They were started in 1870 and are now thought to be the largest lily farms in the world. There are twenty-five ponds--one that is an acre-and-a-half in area--which hold more than a half million lily plants. (Associated Press.)

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World Locust Nature (London, September 24) in an item on the recent Fifth International Locust Conference, says: "The great economic importance of the (locust) problem was emphasized by the results of a statistical inquiry organized by the International Centre for Anti-Locust Research in London. The information collected from the majority of the countries suffering from locusts and grasshoppers showed that the average cost of these pests to the world amounts to not less than 15 million pounds per annum. Discussions at the conference were centred mainly round the necessity of establishing permanent organizations for the supervision of the original centres of locust outbreaks, with a view to the prevention of such outbreaks in future. An agreement was reached by the various delegations that such organizations should be established without delay and financed on an international basis. This decision was made possible by the extensive investigations carried out during recent years by an international team of entomologists surveying some of the most inaccessible parts of Africa and Arabia. There is every hope that the recommendations made by the conference will be adopted and acted upon by the Governments concerned, and that the control of locusts by the prevention of the swarm formation will become an accomplished fact."

Algae in "Scientists have long been aware of the fact that the Soil Indian rice crops, despite the absence of any system of manuring, continue year after year without loss of quality," says The Field (London, September 24). "At Queen Mary College it has been conclusively proved that certain of the blue-green algae occurring in the water have the power to absorb nitrogen from the atmosphere and thus, after decay, to enrich the soil and in turn to feed the rice crops. To prove without doubt that the alga itself was absorbing nitrogen, it was first necessary to secure specimens of blue-green algae completely free from bacteria. When these had been obtained it was then established beyond doubt that this low form of plant-life does in fact take in nitrogen and is thus a natural manuring agent. Further research may show how this new knowledge can be extended to agricultural production not only in India but elsewhere."

Course in Food Realizing the need in the food industries for men Technology trained as food technologists rather than as specialists in a particular branch, University of Washington has introduced a four-year course in food technology. This course provides training for students who intend to enter the field of food production as control or research laboratory workers. Emphasis may be placed upon bacteriology, chemistry or food utilization by the selection of various optional courses in the fourth year. The curriculum in food technology is administered by a committee from the departments of bacteriology, chemistry and home economics. (Food Industries, October.)

October 10, 1938

Biological Abstracts

Biological Abstracts has grown too big for the average individual subscriber and is about to split into several parts. Due to the fact that Biological Abstracts summarizes everything that appears in the whole field of biology, it has become very thick and costly to publish. Practically every biologist is a specialist, reading only the section of the journal devoted to his particular field. The board of editors has announced that Biological Abstracts will henceforward be published in five sections. The individual biologist may subscribe to any section or sections he desires. The entire journal, with all five sections between the same covers, will continue to be used by libraries. (Science Service.)

B.A.E.Seed Section

The Bureau of Agricultural Economics announces that effective October 15, the Division of Crop and Livestock Estimates will establish a statistical section for seeds, under the direction of G. C. Edler. This new section will handle all statistics of seed production, stocks, movement, and prices. In the formation of the section there is brought together all the work on the statistics of seed that has heretofore been done by the Hay, Feed, and Seed Division and the Division of Crop and Livestock Estimates. It is believed that the work thus combined and enlarged will cover the field more effectively and thoroughly. Mr. Edler entered the then Bureau of Markets as investigator in seed marketing in 1916, and was put in charge of the seed reporting service when it was started the following year. He is recognized today as the outstanding authority on seed marketing statistics and information. (B.A.E. News, October 1.)

Cotton Bale Covers

The first shipment of cotton into North Carolina wrapped in cotton cloth and bound with cotton rope has been received by a mill near Hendersonville, says a Charlotte report in the New York Times. The all-cotton wrapping weighs four and a half pounds against thirteen pounds for jute and iron bands. The shipment was the first under an agreement whereby the manufacturer pays the farmer the difference between the weight of the cotton wrapping and the old jute wrapping. The Federal Government is planning to subsidize manufacturers of the cotton burlap by paying the difference in cost between cotton and jute on a million bales this year.

An item in the Farmer-Stockman (October 1) says: "N. S. Pearse, Secretary of the International Federation of Master Cotton Spinners' and Manufacturers' Associations, Manchester, England, wrote recently to a cotton mill in New Orleans: 'I saw in the Cotton Trade Journal an article upon the suggested use of cotton rope in replacement of steel ties on cotton bales. I should be much obliged if you would forward me a copy of the photograph showing the bale tied with cotton ropes. I also see from your advertisement in the same paper that the U. S. Department of Agriculture has contracted with your firm for the supply of cotton bagging sufficient to cover a million bales of cotton. I may say that we hope the movement to cover cotton bales with cotton will increase in your country, as the elimination of jute and sisal fibers will be much appreciated by the cotton spinners of the world.' The federation Mr. Pearse represents is composed of the cotton spinners of the United States, Great Britain and 19 other nations and has long advocated the use of cotton bagging. A resolution that cotton should be covered with three-quarter pound standard cotton bagging was adopted by the federation several years

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Vol. LXXI, No. 7

Section 1

October 11, 1938

CORN, WHEAT
CROP REPORTS

A government forecast that the United States corn crop would total 2,459,316,000 bushels this year prompted officials to say yesterday that the government loan rate to growers was virtually sure to be 61 cents a bushel. This rate would be the maximum permitted under the crop control law. The parity price now is 81 cents and the farm price 48 cents a bushel, officials said. Loans are being made on 1937 corn at the rate of 57 cents a bushel. The corn crop forecast by the Crop Reporting Board was about 7 percent less than last year's harvest of 2,644,995,000 bushels, but 7 percent larger than the 1927-36 average of 2,306,157,000. The board said the quality of the crop was reported to be generally good. A yield of 26.7 bushels an acre was indicated, compared with 28.2 last year and 22.9 for the 10-year average. The board estimated the wheat crop at 940,229,000 bushels, the third largest on record. It contrasted with 873,993,000 bushels last year and 752,891,000 for the 10-year average. The board reported stocks of old corn on farms on October 1 at 352,134,000 bushels, the largest for that date in the thirteen years that such estimates have been made. Stocks last year were only 60,571,000 bushels. Wheat stocks were estimated at 406,989,000 bushels, compared with 326,503,000 last year. (Associated Press.)

MERIT SYSTEM
FOR LAWYERS

Extension of the merit system to all lawyers employed in the government was asked last night in a report submitted to the executive counsel of the Federal Bar Association, says a report in the Washington Post. The report, "submitted by Thomas H. Ross of the Interstate Commerce Commission, chairman of a special committee, outlined results of a two-year investigation into selection, classification, organization and direction of government lawyers. Ross said about 1,500 lawyers, employed in five government departments and fifteen independent agencies, a cross section of 25,000 federal lawyers, were covered in the report. Selection of lawyers, the report showed, should be turned over to the Civil Service Commission, with the understanding that agencies be allowed to specify their particular legal needs and that these specifications be filled through a new legal section within the commission.

CCC RANGE
RESEEDING

To restore grass to western ranges and combat encroachment of the desert, more than 50,000 pounds of carefully tested seed will be sown this fall by CCC enrollees on grazing areas in 11 National Forests of Utah, Idaho and Nevada, says Robert Fechner, Director of the CCC. "This program," says Fechner, "is designed to restore good forage conditions on some 5,000 acres of grazing lands where ordinary methods of range protection and management have not produced satisfactory results." (Press.)

October 11, 1938

Section 2

Packaged
Poultry

"In taking its place among packaged ready-to-cook foods, dressed poultry has come under a critical consumer eye," say George F. Stewart and Harry E. Drews, in Food Industries (October). "It is exposed to a more exacting yardstick of quality than when marketed as a bulk commodity. As an identifiable food, it must stand inspection. In market appearance as well as in satisfaction to the palate of the consumer, it must stand on its own virtues to become a repeat-sale item. Being a newcomer, its goodness in flavor and eating qualities and its convenience in handling and preparation for the table are its stock in trade...In stepping forward into the ranks of packaged foods, ready-to-cook poultry has become a carefully graded product. It carries either government grade or a brand grade. It is eviscerated--fully drawn with head and feet removed--and is sharp frozen to preserve to the consumer the highest state of eating quality for each bird. Finally, it is individually packaged in a protective and appearance-aiding wrapper. To promote consumer goodwill through brand identification, poultry packers, like other producers of packaged foods, have become highly quality-control conscious. Also, because of the competitive relation between poultry and meats of medium to low price, control over production costs plays its part in the packing of ready-to-cook poultry. Production-cost control is largely dependent upon the efficiency with which the various unit operations are carried out. The operations that apply particularly to ready-to-cook poultry are (1) grading to establish standards of quality based on either government or private specifications; (2) pinning and singeing; (3) evisceration; (4) wrapping and packaging; (5) freezing..."

Arkansas
Side Crops

"The Agricultural and Industrial Commission of Arkansas is very much gratified over reports of its field representatives showing that the farmers in the north-eastern section of the state have picked up around \$250,000 this year from 'sideline agriculture', "says an editorial in the Memphis Commercial Appeal, (September 29). "By this is meant that farmers who turned their attention to activities other than cotton are a quarter of a million dollars better off in cash money than they would otherwise have been. Alfalfa driers and small canning factories are largely responsible for the pickup. Not all of the vegetables are canned, but the presence of these factories has enabled farmers to plan ahead, and not have to depend altogether on the seasonal market. The heart of the rich Arkansas Delta has long grown some of the country's best alfalfa. Five or six cuttings a year are not unusual. There has been an increasing demand for alfalfa meal. Through the use of driers, alfalfa growers have found a profitable market. Radishes and spinach have been popular as truck crops in eastern Arkansas for several years. Buffalo Island cantaloupes are no novelty, either. Now tomato and watermelon growing is taking hold. Last year the Frisco Railroad moved 29 cars of watermelons. This year it moved 104. The interesting thing about the report is the conclusion that new fields of activity are being developed..."

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Yearbook Review "To those who are concerned about the soil and its continued usefulness to humanity the 1938 Year Book of the Department of Agriculture will especially appeal," says an editorial in Pennsylvania Farmer (October 8). "It is the work of over 100 authors whose discussions cover nearly all phases of the subject, if not all of them. The social and economic consequences of soil waste are given particular attention. Impressive figures and statements depict the rate at which our soils have lost and are losing their capacity to produce. The fact that considerable improvement has been made and is being made is not stressed, but it is a fact worthy of recognition in any discussion of the subject. A complete description of the many soil types is an important and valuable feature and the best summary of them we have seen. The work is too big for discussion here, but it deserves careful study for its ideas, its practical information and its expression of public policies...This even if one does not wholly concur in the alarms expressed and fully agree with the policies advocated."

Corn Picking Machinery "The greatest labor saving device that has come to the corn grower in a generation is the modern corn picker," says the Southern Planter (October). "It has already revolutionized corn harvest in the West, and bids fair to do the same for the South. Many types and models, all sizes and prices, are on the market. There are two-row push-types, two-row pull-types and one-row types. All do excellent work. They snap the ears from the stalk, remove the shucks perfectly, clean the corn with an air blast, kick the fodder back on the land, and load the corn into a wagon--ready to haul to the barn. The shattered corn is also saved and carried to the wagon. Your corn is picked and stored when mature, with plenty of time left to harvest your neighbor's crop if you care to do custom work. The corn picker does the work of a dozen men, gets the corn out of the field and the cattle in before the weather gets rough. It saves the laborious jobs of cutting, shocking and husking corn. These machines will pick and husk 12 to 18 acres a day. They have no choice in the corn they get. Whether the corn is tall or short, standing or down, large ears or nubbins, popcorn or large-eared field corn, the corn picker does the same clean job. It works under all kinds of weather conditions--wet weather to excessively dry weather..."

Missouri Soil Conservation The editor of Missouri Ruralist says in the October 1 issue: "After visiting the U.S.D.A. soil conservation areas in Callaway, Johnson, Harrison, Franklin and Perry Counties, studying the work done under the experts in charge and interviewing many farmers, the Missouri Ruralist editor believes that Missouri farmers in these areas have ^{been} rendered a service of incalculable value. Moreover, the state as a whole has been tremendously benefited, providing that farmers out of the areas will visit these demonstration projects, and with the help of their farm agents and extension specialists, apply the lessons learned at home. Truly, men in charge of the conservation areas are soil saviors. Had the work been started 25 years ago there would be no erosion problem now..."

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Gauging Business "The science of measuring business activity is still so new that it can hardly correctly be called a science at all," says an editorial in the Wall Street Journal (October 8), "yet even in the past few years there has been a pronounced shift in emphasis on the symbols by which activity is measured. Twenty years ago, for instance, carloadings were regarded universally as the outstanding method of measuring business activity. Electric power production then assumed increasing importance... Today, however, most economic analysts place greater reliance on certain key industries much as they did on rails and electric power formerly, but with this difference, that these industries are used as measures of the future rather than of the present. Two in particular stand out--machine tools and chemicals. The machine tool index has made marked strides ahead for three months past, and it is expected that the September figure will show another gain. This encouraging note is now reflected in chemicals... The chemical laboratory has so brilliantly entered other phases of industry in recent years that there is nothing of the merely symbolic about the connection of this rise with general business activity. As a warrant of better times ahead, then, it is particularly impressive that improvement in chemicals has so quickly followed the rising trend in machine tool orders."

Civil Service Examinations The Civil Service Commission announces the following examinations: agricultural extension agent, \$2,900, assistant agricultural extension agent, \$2,600, Indian Field Service, teacher in Indian community and boarding schools, Indian Field Service (including Alaska) (optional branches and annual entrance salaries--(1) science, \$1,800 (2) agriculture, \$1,800 and \$2,000 (3) social sciences, \$1,800 (4) language and literature, \$1,620 (5) music, \$1,620 and \$1,800 (6) home economics, \$1,620 and \$2,000 (7) art, \$1,620 and \$2,000 (8) rural merchandising, \$1,800 (9) adult education, \$1,620 and \$2,000 (10) one and two room day school, \$1,620 (11) one and two room day school for Alaskan natives, \$1,800 (12) special or opportunity classes, \$1,620 (13) primary grades in boarding and consolidated schools, \$1,620. Unassembled. Applications must be on file not later than (a) November 7, if received from states other than those in (b); (b) November 10, if received from the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming. For teacher (c) June 30, if received from points in Alaska south of the Arctic Circle; (d) August 31, if received from points in Alaska north of the Arctic Circle.

Rural Medicine Rural medicine, in the opinion of Owen D. Young, must take a chance on "centralized dictation" in the hope of escaping "centralized authority." Mr. Young, who acted as chairman of a conference on rural medicine, said: "It is perfectly clear that we must face aid both from the state and federal governments. There is no need of blinking at the problem." He said that while much had been gained in preventive medicine, rural communities were getting little service from organized services and political agencies. (Associated Press.)

DAILY DIGEST

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Section 1

October 12, 1938

RURAL
HOUSING

The need for providing adequate housing for families on relief and in the lowest income groups was stressed yesterday at the annual meeting of the National Association of Housing Officials. Dr. W. W. Alexander, administrator of the Farm Security Administration, asserted that the United States had lagged behind leading European nations in all types of housing activity and especially in the construction of adequate rural housing. "In our eagerness of the last few years to wipe out the evils of our city slums," said Mr. Alexander, "we Americans have often overlooked the fact that virtually all those evils are equally present in our rural slums..." The Farm Security Administration and its predecessor, the Resettlement Administration, he said, had completed more than 11,700 homes, scattered over 149 projects in 40 states and had provided shelter for more than 1,000 migrant farm laborer families. (New York Times.)

CIVIL
SERVICE

Civil Service Commission Chairman Harry B. Mitchell yesterday denied the request of Communications Commission Chairman Frank R. McNinch for exemption of 60 top commission employees from civil service status under an executive order of President Roosevelt. Mitchell described the request as "neither in harmony with the letter or the spirit of the Executive order." "The Civil Service would not agree to except whole classes of employees," he said. (Washington Post.)

PENNSYLVANIA
TOLL HIGHWAY

Two Administration agencies yesterday made \$61,000,000 available to Pennsylvania for the longest toll road in the country. Arrangements for an RFC loan of \$35,000,000 were announced by Chairman Edward N. Jones, of the Pennsylvania turnpike commission, after the Public Works Administration had approved a grant totaling \$26,100,000. The 4-lane, 162-mile super-highway will provide a high-speed all-weather route straight through from Harrisburg to Pittsburgh with tolls assessed on all traffic to amortize the debt. (Washington Post.)

MINNESOTA
FOREST FIRES

Three thousand men and an airplane patrol were mustered yesterday to combat forest fires which had taken two lives in northern Minnesota. H. G. Weber, deputy director of the State Forestry Division, said the combination of dry weather, high temperatures and low humidity made for the most hazardous fire conditions since October 12, 1918, when a forest fire roared out of control, destroying the city of Cloquet and taking several hundred lives. (Associated Press.)

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Soil Survey
Advantages

"The Federal Government, in cooperation with state experiment stations, has been doing an excellent and valuable service in making soil surveys," says an editorial in Farm and Ranch (October 1). "Soil maps are available for nearly all of the counties in Texas and in other Southwestern States...Texas has thirteen distinct regions, each one differing from the others in some important feature. Conditions vary in each region, for in nearly every county there are numerous soil types. In general, however, a region is defined on a basis of the prevailing soil type. Local conditions may, of course, guide the farmer in developing his cropping system, and his own individual preference may direct him in organizing his farm program... There is no good reason why a county agent in cooperation with other agents in the same natural region, should not encourage the type of farming most suited to that area. Probably county agents do not have the authority to formulate such a program, but the field is wide open for district agents to do something constructive in the way of developing inter-county programs of real importance to the agriculture of the State... Farm and Ranch believes that our soil surveys should be put to immediate use, and that county lines will not interfere with the development of natural region programs which should prove to be of material importance in the development of southwestern agriculture."

Forest
Fires

A forest fire every 3 minutes--approximately 185,000-- was last year's count in the United States, according to the Forest Service. However, forest fires in 1937 were 18 percent less than in 1936. The burned area was 21,980,500 acres or only slightly more than half the acreage burned during 1936. The Forest Service attributes this reduction to a number of reasons. Included are more favorable weather conditions, improved fire fighting technique, more complete fire detection, increasing cooperation by private woodland owners, availability of trained CCC fire fighters, and increasing care with fire by forest workers and visitors. The reports reveal that 94 percent of all acreage burned was on unprotected forest areas and more than 11 percent of all unprotected forested land was burned over. The 121,449 fires on lands not receiving protection last year burned over approximately 20,637,000 acres, and caused damage estimated at more than \$18,000,000. The annual average number of fires on unprotected areas during the 5-year period 1933-37 was 104,816 and the average annual burn was 33,129,000 acres, causing a yearly damage estimated at \$33,613,000.

1938 Turkey
Production

The Bureau of Agricultural Economics has completed a survey of turkey crop conditions in which it estimates a crop this year exceeding by 3.7 percent that of 1937 but about 6 percent smaller than that of 1936. Abundant supplies of grain and plenty of green feed in most sections have favored rapid growth and good condition of the birds, which, according to the Department, are expected to average slightly heavier than last year. (The American Produce Review, October 5.)

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Photographic Standardization "Following a request from the International Standards Association that the United States take leadership in standardization work in the field of photography, the Standards Council of the American Standards Association approved the undertaking," reports Science (October 7). "A new committee will be organized representing manufacturers, distributors and users of photographic materials in the United States. Its duties will be (1) to initiate an American Standards Association project on standardization in the field of photography under the leadership of the Optical Society of America; (2) to take leadership in the international project on photography as well as cooperating in the work...Work will affect amateur, portrait, commercial and news photography, as well as process work, aerial photography, radiographic and photomicrographic photography, documentary, medical and photomechanical photography..."

Flushing Bars for Farmers Field & Stream (November) reports: "The Northwestern Ohio Fish and Game Protective Association, realizing that most farmers can't take time in the summer months to build flushing bars which would save game during mowing operations, decided to build their own and make them available, free of charge, to all farmers in their territory...Many farmers who had never before used the bars were quick to take advantage of the free offer. Furthering this bird saving idea, the club made arrangements to incubate eggs from deserted clutches, or from nests where the hens had been killed by mowers, and release the chicks on the farms where they originated. This dual program was not only aimed at saving many birds, but to impress landowners with the value of birds as a wildlife crop and to stress the importance of farmer-sportsman cooperatives."

Frozen Bread The American Bakers Association at its annual meeting will serve bread baked 32 days beforehand and kept fresh by freezing at low temperatures for research purposes, says a report in the Northwestern Miller (October 5). According to Dr. William H. Cathcart, in charge of research and analytical laboratories at the American Institute of Baking, the serving of the bread will mark the first practical application of research that has been in progress for the past year on the freezing of bread. Said Dr. Cathcart: "The freezing of bread to keep it fresh for periods of 30 to 70 days has proved successful in experiments and is part of the research program, including the study of bread flavor, conducted by the baking industry..."

Roquefort Cheese Patent What is claimed to be the first successful commercial method of making Roquefort cheese in this country has been developed at Iowa State College, according to a patent granted to Dr. Clarence B. Lane and Bernard W. Hammer of Ames, says a report in the New York Times. Roquefort cheese made by the new process is said to be equal in quality and flavor to the finest imported varieties. The time of curing is reduced from the nine to twelve months required by conventional processes to from two to four months.

Social Work in Survey Midmonthly (October) announces a series of Rural Areas articles on "social work at the grass roots." These will discuss "the process and problems of social work where the county is the unit of administration and practice runs out over the back roads to the villages and remote farms. The backbone of the series will be a number of articles by Josephine Strode. Her present article, cast as a letter to Miss Bailey, the Survey's itinerant observer of the social work scene, sets the stage for those to follow. First of these will be 'Publicity by Way of the Barn Door'. The scheduled articles will deal with the realities--and humors--of the day-to-day job and the practical methods that are growing out of experience. Along with them will be articles by other authors which will delineate the applicability of fundamental social work philosophies, techniques and aspirations to practice in the rural field. Such is the first article (in this issue) by Josephine C. Brown, 'In-Service Training for Public Welfare'..."

Dust Bowl Rehabilitation "Two dispatches touching on the Dust Bowl area offer a study in contrasts," says an editorial in the New York Times (October 9). "The first is from Washington. The Northern Great Plains Committee, reporting to President Roosevelt, finds that the people in parts of the Dakotas, Wyoming, Nebraska and Montana 'would be little better equipped on the whole to cope with a serious drought next year than they were in 1930.' Some families have moved out. Most have remained, hoping for better times, but still dependent on some form of federal aid. The committee suggests that this aid should 'hereafter promote permanent rehabilitation.'...The second dispatch, from Amarillo, Texas, quotes the statement of a government soil expert, H. H. Finnell, that 'control of the so-called Dust Bowl is nearer realization today than at any time since it came into existence.' One farmer who took the advice offered him by the conservation specialists bored and struck water, planted corn and feed on lands which he was able to irrigate and when feed prices went down fed his sorghum profitably to his own cattle...There is no inconsistency, of course, between the two pictures. What is involved is, first, rainfall, over which even Washington has no control; second, proper use of land, not for the exceptional year but for the average year... It is an encouraging fact that although the Federal Government has been generous with money and scientific aid in the dry region, it has recognized since the first Great Plains report that the main job of rehabilitation must be done by states, local communities, cooperatives and individuals..."

Domestic Wool Prices During the remainder of this year domestic wool prices will be influenced to greater extent than in recent months by the movement of foreign wool prices, the Bureau of Agricultural Economics states. "The recent advance in domestic prices and the decline in foreign prices in terms of U.S. dollars had widened the spread between domestic and foreign prices and the spread now is not much less than the tariff," the bureau explains. (Wall Street Journal.)

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Vol. LXXI, No. 9

Section 1

October 13, 1938

FARM PRODUCTS
FOR RELIEF

Secretary Wallace stated yesterday that a gigantic program to "dump" surplus farm products into the hands of poor Americans at cut prices was taking shape in the Agriculture Department, says an Associated Press report. The plan, designed primarily to reduce surpluses and thus buoy prices received by farmers, is an Administration answer to unrest in the farm belts. Proposals now being studied, Mr. Wallace said, call for a "two-price" system under which certain agricultural products and their manufactured products would be offered to relief families and others with low incomes at prices below those prevailing in the markets. Losses would be borne by the government. Commodities which might be affected are cotton, vegetables, fruits, dairy products and meats.

TO PROTECT
TIMBER AND
FARM LANDS

Steps to protect from fire 4,000,000,000 feet of timber felled by the recent hurricane in the Northeastern States and for wind erosion control in the Southern Great Plains area were announced yesterday by Secretary Wallace. The Agriculture Department is working on two plans for salvaging the large amount of fallen timber in the New England States, said to be enough to keep saw mills busy there for four or five years. An army of about 40,000 WPA workers under the supervision of state and federal foresters will go into the New England woods to begin restoring fire protection services. F. A. Silcox, Chief of the Forest Service, has been named coordinator. Secretary Wallace said that the AAA, the Farm Security Administration and the Soil Conservation Service would cooperate in the Great Plains Erosion Control Plan. This will differ from the last year's program, he said, mainly in that it sets up machinery for advancing federal aid for the treatment of abandoned as well as occupied lands. Abandoned lands, he said, often have been the starting point for much blowing which has spread to nearby farms. (New York Times.)

MEXICO BUYS
U.S. WHEAT

A Mexico City cable to the New York Times says the Mexican Government has agreed to buy immediately in the United States more than 3,000,000 bushels of wheat under the new American subsidy plan. It is believed to be the first such deal since the subsidies were announced in Washington. The contract has been signed with a grain company of Kansas City for 1,120,000 bushels of hard wheat at a cost of about \$760,000, close to 68 cents a bushel. The arrangement is the result of negotiations between the Mexican Export and Import Bank and the AAA.

Fertilizer Placement

More and more farmers who use commercial fertilizers are learning from experience and experiment that it pays to place fertilizer in bands to the side of the seed or plant, rather than above or below, G. A. Cumings, of the Bureau of Agricultural Engineering, said recently in addressing the American Society of Agricultural Engineers. He was reporting on the results of wide experiments carried on by the Department of Agriculture in cooperation with many state experiment stations. It is essential in most cases, particularly for crops grown in widely spaced rows, says Cumings, "that the fertilizer be localized within rather limited zones either in continuous bands along the row or in short bands or other patterns at each widely separated hill or plant. Location of the fertilizer at the sides rather than directly under or above the seed or seedling roots has, in most cases, been found most advantageous." Because of the prompt action of implement manufacturers in developing suitable machines and fertilizer depositing equipment, Cumings said, growers of several major crops have been able to take advantage of improved methods of placing fertilizer. (Farm Implement News, October 6.)

Making Wool Unshrinkable

An editorial in the New York Times (October 9) comments on the recently announced process of making wool unshrinkable. This process was developed by workers of the War Department. The editorial says in part: "A year ago an English chemist, A. J. Hall, claimed that it was enough to immerse wool in what cleaners call 'dry spirit' (sulphuryl chloride) to prevent it from shriveling, and this without affecting the quality, softness, fluffiness and color of the fiber. Textile manufacturers in various countries thought so well of his discovery that they bought licenses from him. Earlier still the Wool Research Association, an English organization, said something about a secret method of using dry chlorine gas or bromine, but that only British woolen and worsted manufacturers would receive the benefit of its work. Like all these forerunners, Jackson, Reichert and Peakes (of the War Department) also used chlorine, but in the form of tertiary amyl or butyl hypochlorite. Viewed in the light of Hall's success, their claims seem credible enough, though textile experts will have to decide."

Illinois Weed Eradication

"Weed eradication has long been a project of the Illinois State Department of Agriculture and of the University of Illinois," says an editorial in the Chicago Tribune (October 1). "...Until this year it was necessary for the college of agriculture and the state department of agriculture to promote weed control. This year both have been swamped by requests for leadership and assistance in the campaign. More than 10,000 persons from 57 counties have attended the state department's demonstrations. City dwellers know weeds as an eyesore and in the pollen season as a serious menace to health...But to the farmer weeds are an ever-present threat to his bankroll. Two-fifths of the pasture land in the state, instead of growing plants useful for forage, are overrun by weeds. Seeds scattered

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from unkempt pastures and wild lands invade crop fields at costs reckoned in millions. The American farmer is the most efficient in the world in the application of machine power to his work. He is one of the least efficient in his treatment of his land. Weeds above the soil line are as great a financial menace as erosion and over-cropping are to the soil itself. Weed eradication campaigns pay farmers direct and immediate profits, in better crops and better prices. The eradication work has been highly successful in those counties which produce seed for commercial use. Freedom from weed seeds has boosted their prices appreciably this year."

Support for
Research

Whether the Federal Government is to become the chief support and guide of pure scientific research was brought up recently at the fiftieth anniversary of the Abbott Laboratories in Chicago, says a report in the New York Times. Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, said that adequate support was now the most serious question facing those who think about the future of pure research. "All endowments' earnings are reduced," he said. "There are fewer large incomes to permit benefactions and the heavy drain of taxation takes the heart out of philanthropic impulse...The sources which have hitherto supported principally pure research in this country are rapidly becoming less able to support it...If present economic and political tendencies continue, I see only one ultimate source of support--the government through taxation for the general public benefit." Dr. Thomas Parran, surgeon general of the United States Public Health Service, said that with philanthropic sources apparently "drying up," it seemed "both logical and desirable" that the Federal Government should "assume a larger responsibility for leadership in scientific research." Dr. Morris Fishbein, editor of the Journal of the American Medical Association, disagreed with Dr. Parran on the government's role in research. "Independent research must be further stimulated and never supervised by the government," he said. "It is the effort of the individual in research and medicine that has made possible the progress we have achieved thus far..."

Ohio Game

Conservation "Protection for the farmer, as well as the wildlife of the state, is part of the game management program now being carried on by the bureau of game management of the Ohio Division of Conservation," says Ohio Farmer (October 8). "...Game management activities for the state are set up as a flexible program and one designed to meet the needs of individual farmers and conditions on different farms. Complete control may be provided over the entire farm or in other cases only protection on small areas. One is the Stewart Lake Game Management Area. Organized last summer with 8 members representing 700 acres of land, there are now 24 farmers represented with a total of 1,700 acres of land...Another type is the game refuge. This is an area which usually is from 100 to 300 acres in size and upon which no hunting is permitted at any time. Here game is encouraged to propagate so as to spread into the surrounding territory. Some farmers who do not want trespassing or hunting on their farms at any time are interested in establishment of a game refuge..."

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Botanical Union Meets

The first South American Botanical Union opened its sessions yesterday, says a Science Service report from Rio de Janeiro, with scientific representatives from all South American republics present, as well as official delegates from several countries outside the continent. Among those present from the United States is C. O. Erlanson of the U.S. Department of Agriculture. An example of international scientific cooperation that is also intercontinental is presented in one paper by Dr. A. A. Bitancourt of the Sao Paulo Biological Institute and Dr. Anna E. Jenkins of the U.S. Department of Agriculture. The two scientists have jointly investigated one of the most troublesome of the disease-causing fungi that attacks oranges and other citrus fruits. The importance of a Brazilian-American cooperative program on diseases of this particular fruit is stressed through the fact that the original navel orange stock, on which the California orange industry is founded, came from Brazil. Drs. Bitancourt and Jenkins have kept cultures of this fungus, *Elsinoe australis*, going for years in flasks and test tubes.

Roadside Improvement

Planning and Civic Comment (October) in an editorial, "Who Owns Our Scenery?" says in part: "Millions of federal tax money matched by millions of state tax money have been expended on improved roads in the last 22 years. It is true that this money has given us smooth, well-aligned roadbeds on which to travel, and, in recent years, some preservation of native trees and plants and some roadside planting have been included on the public rights-of-way. But this vast expenditure of public money has brought with it the super poster panel, the neon lights and the blatant sign advertising of the filling stations and roadside lunch rooms on private property along the roads. For a pittance, many of the very farmers who profited by the expenditure of public funds on improved roads, have leased their fields along the highways to the billboard companies... There is a growing opinion among planners and lawyers that the state may protect the investment of the public by strict zoning of the private property along old state highways and by binding stipulations in the case of new ones. Parkways and freeways of sufficient width, whether federal, state or county, carry with them their own protection on public property. But with all this advance for legal possibilities for control, billboards, unsightly filling stations and other business structures, plastered with signs and distracting lights, seem to be on the increase..."

Research Institute

A report in the Wall Street Journal says E. R. Squibb & Sons have established a new laboratory to engage in pure research, to be known as the Squibb Institute for Medical Research. This institute is the first foundation in this field backed by industrial capital to engage in pure scientific investigation as distinct from the specialized work done in industrial laboratories. The Squibb Institute will conduct investigations in the field of experimental medicine, biology and organic chemistry along lines entirely apart from the ordinary research done in Squibb's own laboratories, which will continue as before.

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Section 1

October 14, 1938

TRANSPORTATION CENTRALIZATION Chairman Wheeler of the Senate Interstate Commerce Committee advocated yesterday centralization of government control of all forms of transportation, including railroads, trucks and water carriers. Wheeler, in suggesting that all transportation operate under the same controls, was in agreement with George Harrison, rail labor spokesman. Harrison made a similar point in a suggested long-range program, under which labor, management and the federal government would team up to rehabilitate the carriers. He pleaded with management to withdraw its pay-cut demand, for the benefit of all three. (Associated Press.)

MINNESOTA FOREST FIRES Fire fighters on both sides of the Minnesota-Ontario boundary yesterday fought blazes, as dangerous weather brought about a new outbreak that threatened three communities in the region where twenty perished in forest fires Monday. By late afternoon, however, the fire lines of more than 1,000 men were holding off the flames at International Falls, Minnesota, and at La Vallee and Devlin, Ontario. Dusk brought improved conditions in the border fire zone. The humidity was rising and the temperature dropping, although the wind continued at a 20 to 25 mile velocity. (Associated Press.)

RETIREMENT EXTENSION The first step toward realization of President Roosevelt's desire to make all possible government employees eligible for retirement benefits was taken yesterday by the Civil Service Commission when it mailed questionnaires to all personnel not now eligible. When Mr. Roosevelt first expressed the wish, a year ago, that retirement benefits be extended to some 300,000 federal workers not eligible for social security benefits under the retirement system, he directed that a cost survey be made by the Civil Service Commission and the Social Security Board. Distribution of the questionnaire was understood to be the first step in the program. (Washington Post.)

F.S.C.C. PURCHASES Surplus commodity purchasing programs for rice, cane syrup, topped beets and carrots were announced yesterday by the Federal Surplus Commodities Corporation. Rice purchases will continue until next June 30, as the result of the expectation of price-depressing surpluses due to the largest crop on record. (Press.)

Section 2

Greenbelt Tax Payment The sum of \$42,000 annually will be paid to Prince Georges County and the State of Maryland by the town government of Greenbelt to compensate them for the losses they normally would suffer through the Bankhead-Black act's exemption of federal projects from taxation, says a report in the Washington Star. The payment is to be made each year out of the proceeds from rents collected from residents of the Rural Resettlement Administration's model community. Officials said no raise in rents is necessary as provisions for the payment were considered in settling on monthly rentals of homes in Greenbelt. County and state executives and a representative of the Farm Security Administration worked out the arrangement. A special committee reported that the community, if subject to taxation, normally would be assessed at \$3,257,000. Under the county tax rate of \$1.18 on each \$100 of valuation the county would receive \$40,000 and the state would derive \$2,000 through its rate of 23 cents on the \$100 assessment.

Cattle Feeding Situation The Bureau of Agricultural Economics says that the number of cattle to be fed for marketing in the coming winter and spring probably will exceed the number fed the year before. It adds that its information now, however, does not point to a large increase, even though feed is more plentiful than it was a year ago and prices of most feeds are substantially lower. Reports indicate that feeding operations will be somewhat larger in the Corn Belt States, but that increases there may be offset partly by decreases in other states, especially in the Western States. (Associated Press.)

Reclamation Projects Irrigated farms are being provided as rapidly as possible, as one step toward the rehabilitation of farmers from the Southwest, Commissioner John C. Page, of the U.S. Bureau of Reclamation, said recently to the National Reclamation Association. New dam construction now in hand will provide water enough for 2,500,000 acres of land, he said, enough for 40,000 families. Additional possibilities indicate a possible future development of 7,500,000 acres more. But projects in construction and in prospect do not feed families now in need, Mr. Page pointed out. That is something beyond the scope of his organization and must be taken care of by other agencies. (Science Service.)

Restraint of Cooperatives Donald R. Richberg, former NRA general counsel, in addressing the National Association of Food Chains recently, urged that management be "set free from a mass of existing restraints on cooperative action." "If," he said, "we required all forms of cooperation between competitors to be carried on in the open under government scrutiny but not under government control, we would soon be able to distinguish between those arrangements which civilize competition and promote the interest of both workers and consumers in stable low-cost production and distribution, and those arrangements designed to stifle competition and to establish artificial prices at the expense of the worker-consumer." (New York Times.)

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Iowa Law Aids Liming "Where only a few hundred tons of limestone were used annually in southern Iowa, now thousands of tons are being distributed to make better pasture, more alfalfa fields, stronger livestock and bigger farm incomes," says *Wallaces' Farmer* (October 8). "One cause of the increase is the AAA program. Many farmers have found it necessary to use limestone ahead of legume seedings to be sure of good stands. Another cause is the improvement of the trucking service from the quarries. But the greatest single factor in the increase is the limestone law passed by the last legislature. This law authorizes the board of supervisors in any county to contract for large quantities of limestone, to be sold at cost to individual farmers. Or...the board may acquire quarry land to be operated for the benefit of farmers...So far the plan is operative in 25 counties...The reduction accomplished by the boards has amounted to nearly \$1 per ton in some instances...One of the features of the law is its provision for buying limestone under a kind of installment plan. A farmer may pay for his lime in five equal installments, the collection to be made each March 1, at the time of paying land taxes..."

Highway User Study Members of the Michigan State Highway Planning Survey are studying the relation between mileage driven and the age and ownership of Michigan automobiles in an effort to find a way of predicting trends in highway use and gasoline tax income, says a Science Service report from Lansing. Autos owned by city dwellers are driven further each year than cars owned by people living in rural areas, they have learned in a study carried out with the cooperation of the Bureau of Public Roads. A greater percentage of city-owned cars are a year old or less than is the case among rural-owned autos. "The effect upon road use exerted by those factors being known, future variations in highway travel and gasoline tax income may be anticipated whenever the age pattern of vehicles alters with changing economic conditions, or when shifting population and other trends redistribute the situs of vehicle ownership," they declare. During the year 1935, the survey shows, rural passenger cars traveled an average of 7,404 miles, as against 9,293 miles for urban passenger cars. If such a ratio is maintained and if the ratio of rural-owned cars to urban-owned ones changes, highway engineers can predict in a general way how highway usage will be affected.

Disinfectants, Insecticides A group of five pamphlets which rate several types of household disinfectants and spray-type insecticides has been published by the National Bureau of Standards. Meant to serve as a description of specifications to be followed by manufacturers on a voluntary basis and for the guidance of consumers, the pamphlets describe liquid hypochlorite, pine oil, coal tar and cresylic disinfectants and the spray-type insecticides. (Science Service.)

Blue Ridge Road The construction program for the 480-mile Blue Ridge Parkway has progressed so that a 140-mile unit in Virginia and North Carolina will be opened to traffic by next spring. (Engineering News-Record, October 6.)

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Soil Loss Farm Research (New York Experiment Station, Geneva) From Rainstorm reports: "On August 10 the experiment station was visited by a rainstorm of such unusual intensity as to focus attention on the necessity of an erosion control program. The rain continued for 12 hours, a total rainfall of 4 1/2 inches being recorded. Heavy bursts of rain fell intermittently, with a maximum intensity as high as six inches per hour. The heaviest prolonged period of heavy rainfall occurred between 10 o'clock and midnight. Plots located at the station gave significant figures on soil and water losses. Maximum losses of soil and water occurred in a fallow plot of Dunkirk soil. In round figures, 66 percent of the total rainfall was lost as runoff, carrying with it 46 tons per acre of top soil. This very severe loss occurred on a very moderate 5 percent slope. On a steeper slope, a fallow plot on the somewhat more permeable Ontario soil lost 52 percent of the rainfall as runoff, and 24 tons per acre of soil. A similar fallow plot of Ontario soil, on which a green manure crop of rye had been turned under showed how applications of organic matter decrease erosion. This plot lost 42 percent of the rainfall as runoff and 13 1/2 tons per acre of soil. The additional organic matter saved 10 tons per acre of soil in a single rain. Corn across the slope on Dunkirk soil allowed a 28 percent loss of rainfall as runoff accompanied by an 8 tons per acre soil loss. This figure should be compared to the 46 tons per acre lost from the fallow Dunkirk plot. A red clover plot lost 5 1/2 percent of the rainfall and only 89 pounds of soil per acre. Soybeans and grass lost less than 1 percent of the rainfall and 30 and 10 pounds per acre, respectively, of soil. This seems to be an excellent place to reiterate the general principles of soil conservation..."

Variety Trends of Apples The American Fruit Grower (October) reports that it instituted a nationwide apple variety survey--the first of its kind. "More than 70 of the country's leading nurseries cooperated by reporting those varieties of apple trees which are in greatest demand for new plantings," it says, "and since the varieties of trees now being planted will determine the apple production 10 to 15 years from now, growers can use this survey as a guide to a planting program." For early varieties, it reports: "In all but two sections Yellow Transparent heads the list. Second place in national rating goes to Duchess, but this variety is being overshadowed in some northern areas by Early McIntosh and in the south by Red June and Red Astrachan." For midseason varieties: "By far the favorite is the McIntosh. It is the leader in every section except the South and North Central States, but ranks second even in the latter area. National rating shows Cortland and Wealthy second to McIntosh." For late varieties: "Delicious, all types, leads by greatest margin in this group and is almost twice as popular as its nearest contender, Jonathan. Other popular late varieties include Stayman, Yellow Delicious, Rome Beauty, Grimes Golden, Baldwin, Northern Spy, Winesap and York Imperial."

Streamline Tractor A farm machinery manufacturer announces a new tractor which is equipped with self-starter, radio, heater, safety glass, upholstered seat, rubber tires and enclosed cab. This is adapted for heavy field work or for the highway at a speed of 40 miles per hour. (Nebraska Farmer, October 8.)

DAILY DIGEST

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Vol. LXXI, No. 11

Section 1

October 17, 1938

WALLACE
ON FARM
PROGRAM

Urging farmers to fight enemies of "the best national program agriculture ever had," Secretary Wallace warned them Friday against alternative proposals which he said were aimed to destroy agricultural adjustment, says a Springfield, Illinois, report to the New York Times. Mr. Wallace ascribed to the farm act a major role in checking the recession, ending the threat of an imminent depression and putting the country back on the road to recovery. The act came to "the country's rescue," he said, "just when we needed help the most." "The agricultural adjustment act of 1938 does not represent the ultimate perfection, but it does represent a complete charter of farm equality," the Secretary asserted. "I wonder whether so much good has ever before been done in so short a time by a single act of Congress." Mr. Wallace spoke before 5,000 farm leaders and AAA committeemen.

CIVIL SERVICE
CONFERENCE

With 500 delegates due to attend the five-day session, the thirtieth annual meeting of the Civil Service of the United States and Canada starts today in Washington, says a report in the Washington Star. Bringing together representatives of federal, state and municipal agencies and others interested in the subject of government, the conference will cover a wide range of personnel problems, with attention centered on methods of improving civil service procedure through cooperation between these various groups. The contemplated reshaping of the federal civil service in conformity with President Roosevelt's orders of June 24 is expected to provide one of the principal topics of discussion. Prospective developments in the civil service to meet the demands occasioned by the extension of government into new fields of activity will be another. Health and safety safeguards for workers and grievance-adjustment machinery are other items of importance on the program.

FARM WAGES
DECLINE

Rates of wages paid to farm workers in the third quarter this year declined, in contrast to the usual increase in this period, the Department of Agriculture reports. On October 1 they averaged 118 percent of the prewar rates, or 2 points lower than on July 1 and 8 points lower than on October 1, 1937. Virtually all the drop was in the monthly rates, however, as day rates for the country averaged about the same as on July 1. The most noticeable decreases were in the Pacific, Mountain, West, North Central and New England States. (Press.)

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Cooperation in Erosion Control Cooperation by farmers is essential to adequate solution of the soil erosion problem, administrators of the Soil Conservation Service were told recently by J. W. Sargent, Fort Worth, Texas, associate regional conservator of the service. "Soil conservation districts," he said, "place the responsibility for the conservation of soil and soil resources squarely on the shoulders of local people who have the power to draft their own plans of action to bring about effective erosion control on all farms in the district. There is little use in treating isolated farms in watersheds with erosion practices if those farms lie below other farms. Effective control begins at the crests of the ridges and works down, farm by farm, until the very banks of the stream are reached." Arkansas already has such control projects under way, the speaker pointed out, and the same plan is about to be put into effect in Louisiana. (Dallas Morning News, October 5.)

Proteins
for Swine

"Supplement C" was the chief topic of conversation among the nearly 2,000 visitors at the annual Swine Day, Purdue University, last month," says Prairie Farmer (October 8). "This supplement, a multi-protein, home-mixed combination captured top place in the 1937 protein supplement feeding test at the university and again this year produced the fastest gains when fed to hogs on pasture. Supplement C was made of 20 pounds meat and bone scraps, 20 pounds fish meal, 40 pounds soybean oilmeal, 10 pounds linseed oilmeal and 10 pounds cottonseed meal. Prof. C. M. Vestal of the Purdue animal husbandry department was in charge of the experiments involving the feeding of about 400 grade Duroc-Jersey hogs. As nearly as possible the only variations in the swine rations were changes in proteins fed. Hogs in dry lots made the fastest and cheapest gains when fed a supplement made up of 20 pounds meat and bone scraps, 20 pounds fish meal, 40 pounds soybean oilmeal, 10 pounds cottonseed meal and 10 pounds alfalfa leaf meal. In the trials with hogs on pasture, the lots fed corn supplemented with meat and bone scraps made an average daily gain of 1.58 pounds with a feeding cost per 100 pounds gain of \$3.74. Meat and bone scraps 50 pounds and soybean oilmeal 50 pounds fed to another lot caused an average daily gain of 1.56 pounds at a cost of \$3.79. The supplement made of meat and bone scraps 40 pounds, soybean oilmeal 40 pounds, linseed oilmeal 10 pounds and cottonseed meal 10 pounds resulted in an average daily gain of 1.63 pounds at a cost of \$3.88 per hundred pounds. Hogs fed supplement C made an average daily gain of 1.68 pounds at a cost of \$3.87..."

Sickle for
Sorghums

"The problem of threshing grain sorghums has received the attention of farm machinery manufacturers," says Nebraska Farmer (October 8). "One company has devised an upright sickle which is bolted to the regular sickle and moves with it, for topping and threshing bound sorghums. The combine can be driven from shock to shock and the heads topped and threshed, or can be used as a stationary machine and the bundles hauled to it."

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Egg Laying Pen Record "With an average of 288 eggs and 300 points per bird in 51 weeks,*an official world's record in egg production has been established by a pen of 13 White Leghorn hens bred by the Dryden Poultry Breeding Farm of Modesto, California," says California Cultivator (October 8). "This was entered in the International Egg Laying Contest at Storrs, Connecticut, which ended last month. The record of the Modesto pen is the highest in number of eggs in the history of the world's official laying competitions by a pen of thirteen hens of any breed, and is also highest in points for White Leghorns, which are based on egg size. A pen of Rhode Island Reds at the same contest, however, had a slightly higher point score. All thirteen of the Leghorns lived to the end of the year. Seven produced more than 300 eggs each."

Boron in Soils American Fertilizer (October 1) contains "Recent Studies on Boron in Soils," a paper by James A. Naftel, Alabama Experiment Station. He says in the concluding paragraphs: "The present knowledge of boron response in agriculture, although seemingly voluminous, should be only the impetus for more intensified research on the role and usefulness of this element. The present period is perhaps only the beginning of such investigations which might extend beyond the field of plant nutrition and soil fertility into problems of plant pathology and soil bacteriology. Further investigations are needed on the residual effects of boron applications and the fate of boron including the amount leached after its incorporation in the soil under field conditions. Several laboratory studies have been reported on this problem but the results do not agree and may not be similar to field conditions. Other soil areas and other crops should be tested for boron response. Moreover, it seems desirable to investigate further the possibility of raising the reaction level of soils with lime above that which is now thought to be practical with the simultaneous incorporation of the proper amount of boron; that is, higher soil reactions with boron present may be more favorable for plant growth."

Cotton Cord for Tires Synthetic fiber will not successfully replace cotton in automobile tire manufacture, William D. Anderson, president of a manufacturing company at Macon, Georgia, predicted recently. Speaking to the National Association of Independent Tire Dealers, Mr. Anderson challenged assertions that rayon cord offers greater life expectancy in tires than does cotton. "No known fiber combines the remarkable tensile strength of cotton with its flexibility, its resiliency and its ability to stand punishment," he declared. He said a new heat resistant cotton cord, recently developed, compares favorably with a steel strand of the same thickness and has demonstrated in tests it is capable of outwearing, outlasting and outliving any compound of rubber yet developed. "Heretofore," he said, "the problem of the tire manufacturer has been to construct a carcass that would last as long in service as the tread which the rubber chemists have been able to produce." (New York Herald Tribune, October 13.)

*Many chickens were killed the day before the contest finished, in the hurricane which struck New England.

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Turkey
Reviews "Few turkey growers subscribe to scientific journals which deal with research work about turkeys," says an editorial note in Turkey World (October). "Even if they did get them, we doubt if they would have the time or interest to read all this material and to interpret it in the light of using its practical applications in solving their own problems. For these reasons and because of his distinction as an authority on turkey information, Turkey World has engaged S. J. Marsden, in charge of turkey research in the U.S. Department of Agriculture, to prepare this department. Here are briefly summarized and interpreted in language that anyone can understand, the results of scientific research about turkeys."

Ind. Grain Edmond C. Foust, writing in the Hoosier Farmer (October) on Cooperative grain cooperatives, says: "The Indiana Grain Cooperative, Inc., is the answer to years of cooperative experimental work. Stockholders are local cooperative groups, organized at the point of origin. Producers are stockholders in the local elevator. Thus a federated type of cooperative is built from the fields up. The scope of the Indiana cooperative (limited almost wholly to Indiana grain) is not large enough to be cumbersome, and yet large enough to market successfully all grain produced within the state. Each year increased volume finds its way to market by the cooperative route. Farmers who market grain cooperatively no longer wait for their settlement--cash is paid upon delivery. Great quantities of grain controlled by the central organization attract big buyers who need certain amounts of a given quality and grade. Not the least of these things, the Indiana farmers who cooperate operate a million-bushel terminal warehouse in Indianapolis, one of the finest in the country. Had they purchased it ten years ago, instead of leasing it, complete ownership would be theirs today. Farmers have paid for this terminal probably three times through lease costs and this time the unincumbered, debt free property will be theirs."

Phosphates for Sugar Beets "A recent bulletin of the Idaho College of Agriculture summarizes the results of experiments by the U.S. Bureau of Plant Industry on the effect of fertilizers on sugar beets," says American Fertilizer (October). "Beet losses in storage piles have always caused a serious drain on the sugar beet industry. To test the keeping quality of unfertilized beets and those receiving an application of superphosphate, samples of beets in open-meshed bags were placed in the factory storage piles. Decay losses in the phosphorus-starved beets were three to five times as serious as those in the fertilized beets. Increases in yield were about what was expected from the addition of phosphates, but the improved keeping quality is an additional reason for applying superphosphate."

U.S. Standards A permanent staff representative of the American Standards Association will be stationed in Buenos Aires in order to promote acceptance of the technical standards followed by American industry. Such a move, the association believes, will help American trade in Latin-America. British, German and other interests are already similarly active. (Science Service.)

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Section 1

October 18, 1938

**PRESIDENT ON
MERIT SYSTEM**

President Roosevelt proposes to follow up his orders of June 24 revamping the civil service system by calling on Congress for adequate funds to support the expanded program, he told the Civil Service Assembly of the United States and Canada, in a message last night. "Well-selected, well-trained, well-supervised personnel with opportunity to advance in the service on a basis of merit is the key to effective government administration," the President said in his letter to Charles H. Bland, chairman of the Civil Service Commission of Canada, president of the assembly. "The competitive classified civil service system is the best approach to the solution of this problem which there is. That system has not been perfect. I have laid down broad and specific bases for its improvement. I shall appeal for adequate financial support of this improvement, and I shall continue to urge all of the agencies of federal government to discard inherited reservations and unite in utilizing and perfecting the national personnel program now instituted..." (Washington Star.)

**COTTON USES
PROGRAM**

Harry L. Brown, Assistant Secretary of Agriculture, announced last night that the department's cotton consumption committee would begin conferences with textile leaders "within the next 30 days." "Department men will begin making contacts immediately," he said, "and we should be able to hold informal conferences within 30 days." Brown made the announcement at the close of the second meeting of the committee, appointed two weeks ago to develop means of increasing domestic consumption of cotton. Brown flatly denied reports that his committee might recommend government leasing of cotton mills if private manufacturers refused to cooperate in a two-price plan under which low-income families would be sold cotton goods at "bargain prices." (Associated Press.)

**FOREST FIRE
PROTECTION**

The Adirondack (N.Y.) Forest Preserve was officially closed yesterday to hunters by a proclamation of Governor Lehman, because of the fire hazard in fourteen counties. This action was taken after Lithgow Osborne, conservation commissioner, informed Governor Lehman of the serious condition in the woods, due to unusual dry conditions and falling leaves. The proclamation is to remain in force until revoked. (New York Times.)

A United Press report from Arlington (Vt.) says more than 1,000 volunteers battled fires which raged uncontrolled last night through tinder-dry forests of Glastonbury Mountain. A call was issued for 1,000 more men.

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Rural-Urban Conference Although there is a steady migration of young people from towns and farms to the big cities, only one-fifth of surplus rural youth will be needed in the cities in the future because of technological improvements in industry, Dr. Howard A. Dawson, director of rural service of the National Education Association, warned recently. He spoke at a rural-urban conference on youth migration to cities, held under the Alliance for Guidance of Rural Youth and the Welfare Council of New York City. The purpose of the two-day meeting, the first to be held in a large city in America on the subject, was to emphasize the underlying causes of the constant trend of millions of young people to the cities. Economic pressure on the farms and the movement of wealth from rural areas to the cities were held largely responsible for the migration trend. "Following the depression migration was reversed for a short time," Dr. Dawson said, "but at the present time people are again migrating to the cities in greater numbers than from the cities. Most of the migrants have always been young people. About a third were under 15 years old, more than a third 15 to 25 years old and nearly a tenth were 25 to 35 years old. Thus the cities have had to bear the cost of rearing only about 40 percent of the young people who started to work in their industries, stores and offices in 1920-30." Dr. Dawson said: "On the one hand the industrial expansion of the nation has taken place in the cities. In order to man the new industries labor has been drawn from rural areas. And on the other hand the increased mechanization of agricultural production has released young people from the farm." Dr. Paul T. David, secretary and assistant director of studies of the President's Advisory Committee on Education, gave as another cause the steady draining of wealth from farm to city, which he said the young people followed. He said that 70 percent of American farm income flowed to the cities, through such factors as mortgage payments, absentee ownership, dissipation of inherited lands. The migration will continue, Dr. Dawson said, because birth rates in the large cities are deficient by about 8 percent, while farm families produce about 50 percent more children than the farm population lost by death. (New York Times.)

SCS Watershed Seasonal Data Agricultural Engineering (October) says: "Engineers interested in soil and water conservation will be heartily in accord, we believe, with the U.S. Soil Conservation Service policy of making available at the end of each precipitation season its coordinated data on watershed characteristics, precipitation, and resulting runoff. This policy, and the reasons for its adoption, are stated in the annual meeting paper of D. B. Krimgold, published in this issue. The runoff studies on S.C.S. demonstration projects represent a long-time program to obtain hydrologic information which is urgently needed. It is pointed out that these data are not being obtained for determining the effects of various practices. They are basic correlations of natural phenomena which recur at irregular intervals under similar conditions over large and important areas of the United States. They are factors in the cost, effectiveness, and reliability of engineering works

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SCS Watershed Seasonal Data (continued)

for soil and water conservation, water supply, drainage, and flood control. They are factors, lack of accurate knowledge of which leads to overdesign and high cost, and to underdesign, failure, and ultimate high cost. We commend the Soil Conservation Service both for going after this basic information and for adopting a farsighted policy of making it available as it is obtained."

Alcohol from Farm Crops Burke Jacobs, Bureau of Chemistry & Soils, in a short article in Chemical Industries (October) on "Alcohol from Farm Products," says in part: "At present alcohol will cost more than gasoline, and this relative difference in cost must be met. Furthermore, use of considerable portions of present crops will advance raw material prices. This may or may not benefit the farmer in the long run, but large-scale use of farm materials for alcohol production will probably keep the cost of alcohol up, because present crops are inadequate for such a program. Alcohol in motor fuel can be visualized either on the basis of national use of a standardized blend of definite high percentage (10-15 percent) as one extreme, or by localized production and irregular use of blends of varying and low concentration as the other. In the latter case the alcohol will likely be produced from such inconstant local supplies of crops as may be securable, in which probably much of the culls, by-products, or temporary surpluses would be absorbed. The amount and cost of such alcohol would both vary widely. As the other alternative, the production of alcohol in large quantities sufficient to make a ten to fifteen percent concentration blend of national scope is not yet possible because on the basis of present crops, the diversion of any great quantity of our crops would result in price increases which would not only raise the cost of the alcohol to impractical levels but would likewise affect food and feed cost. There has been some discussion on the growing of 'industrial' crops, or crops grown in unlimited quantities directly for industrial use. Such crops would perhaps net a lower unit price return, but would permit farm overhead to be distributed over more production units. Whether this will be practical is yet to be proved."

Farm and Home Mortgage Debt Because of the violent readjustments of the depression and recovery years, the total farm and home mortgage debt of the United States has shrunk more than 18 percent to about \$25,000,000,000, according to the Committee on Debt Adjustment of the Twentieth Century Fund. As a result of its extensive refinancing activities, the Federal Government has emerged as the holder of more than one-third of all the nation's farm mortgages and nearly one-sixth of urban home mortgages, the survey revealed. At its peak in 1929 the farm part of the mortgage debt totaled about \$9,500,000,000 which fell to \$7,650,000,000 by 1935, the shrinkage continuing through 1936, according to the survey. It is estimated that foreclosure and other forced sales caused change of ownership of about 1.87 percent of all farms in 1931, of 2.84 percent in 1932 and of 3.88 percent in 1933. The 1928-29 average had been only 1.70 percent. From 1928 through 1934, Federal agencies' holdings of farm mortgages rose from \$1,850,000,000 to \$2,789,000,000, or from 19 to 36 percent of the totals outstanding, the report stated. (Press.)

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Texas Game Management Texas Weekly (October 15) stating that less than two years have passed since the Texas Extension Service began its game management program, says: "That program already has shown itself to be probably the most important and far-reaching wild-life conservation movement now being carried on in the State. It was inaugurated in January of 1937, and some 10,000,000 acres of land are included at present in community and county-wide game managment associations; that is approximately one-seventeenth of the total area of Texas. The program now reaches 152 of the State's 254 counties...The purposes of the plan already are beginning to be realized. The basic object of the plan is to bring about a more plentiful supply of game in Texas. The Extension Service of A. and M. has proceeded on the well-grounded theory that the individual landowner is the person first and most directly concerned. Farmers joining the game mangement associations agree to make efforts to provide adequate food and cover for game species on their land and to protect the supply so that seed stock will be left after a shooting season. The landowners themselves map out the details cf their program under the guidance of the county farm agent and other available leadership; the only limitations are those provided by State and Federal game laws. The Texas Game, Fish and Oyster Commission may supply seed stock to landowners in areas where there are no game and fish. These are the principal aspects of the program which, under the direction of R. E. Callender, A. and M. College game managment specialist, has spread to three-fifths of all the counties of the State..."

Agricultural Explorer In the Washington Star (October 16) Mary Carter Roberts reviews the book, "The World Is My Garden," by David Fairchild, Bureau of Plant Industry. The review says in part: "This is the story of David Fairchild, agricultural explorer, well-known to Washingtonians. Mr. Fairchild, from the late 80's until the last few years, has been engaged in studying the fruits and vegetable foods of the world...For more than 20 years he was in charge of the division of Foreign Plant Exploration and Introduction in the Department of Agriculture, and it has been largely under his direction that many foods, now commonplaces to us all, have been brought to America from difficult and far-distant places...Mr. Fairchild's life was, as the name of his book implies, one of constant travel, and the eminent men and women of whom he writes are not limited to the world of science or to any one country. He began his travels shortly after entering Government service by going to Italy as a representative of the Smithsonian Institution. From there he went to Germany, Java, Australia, the Cannibal Islands, New Zealand and Hawaii. Subsequently, Mr. Fairchild drew up plans for the Division of Foreign Plant Introduction and undertook to organize it. This led to his going to Florida in order to experiment with tropical plants. And from Florida, he spread his experiments out until, truly, the world did become his garden. He writes of the West Indies, South America, the Orient, Persia, the Caucasus, England, Scandinavia, Africa, Nova Scotia, Central America, Canada. He thought of these lands in terms of their plants, but in his book he never holds to scientific recording to such length as to dismay a lay reader; his pages are full of excellent anecdotes and personal sketches, too..."

DAILY DIGEST

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Vol. LXXI, No. 13

Section 1

October 19, 1938

PATENT
USE CASE

The Justice Department announced yesterday it would ask the Supreme Court to deny patent owners a right to dictate how their products, once sold, may be used. Acting in the capacity of "a friend of the court," the government will file a brief in the case of General Talking Pictures vs. Western Electric Company, Inc., Electrical Research Products, Inc., and American Telephone & Telegraph Company. The case involves the right of the telephone company and its subsidiaries to insist that vacuum tube amplifiers manufactured under telephone company patents be used only for radio receptions and broadcasts. A statement by Thurman Arnold, assistant attorney general, said the suit "involves a question of great public importance." (Washington Post.)

WORLD TRADE
RESTRICTIONS

A London wireless to the New York Times says the belief that the ideas of self-containment, with attendant embargoes and exchange restrictions on the part of Russia, Germany and Italy, are not insurmountable obstacles to the efforts of Great Britain, France and the United States to remove barriers to world trade was expressed by Paul van Zeeland, former Belgian Premier, yesterday. "We must for the moment limit our international ambitions to what is absolutely necessary and especially we must limit them to the development of international trade," said M. van Zeeland. "Even in this limited domain," he continued, "we shall have to satisfy ourselves with moderate solutions for a start. But this immediate task, with its far-reaching implications and modifications, is most urgent."

CIVIL SERVICE
ASSEMBLY

At the thirtieth annual conference of the Civil Service Assembly of the United States and Canada last night Chancellor Joseph M.M. Gray, of American University, declaring his belief in the merit system, said: "We are discussing a nondebatable question. To pass judgment as to the value of a merit system in public service and a public service by political patronage is to weigh the claims of modern scientific medicine and the incantations of an African medicine man." Three public agencies obligated to good government met: the Civil Service Assembly, the Society for Personnel Administration, which sponsored the assembly's evening meeting, and the university, which offers training courses to federal workers. (Washington Post.)

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Rural Folk
Museums

The Countryman (England, October) urges the establishment of folk museums. There are three different kinds of museums, it says: "First, there is the village collection, to deal with the immediate district, and to be housed in an old cottage, tithe barn, disused chapel or school. Then comes the county museum to contain a representative collection in a large house, the grounds of which might become a folk park. Finally, there ought to be a national collection to rank with our general museums. The first class would add its contribution to village life. The second class would serve the general public and be used by motorists and other visitors. The national collection would be particularly useful to the student and to overseas visitors... Besides the folk museums in Sweden, Norway and Denmark, Budapest has its great Hungarian Royal Agricultural Museum, and Munich possesses a museum on wider lines than our agricultural section at South Kensington. The most valuable folk collection in the United States is perhaps that brought together by Mr. Henry Ford..."

Water for
the West

F. R. Kenney, Bureau of Agricultural Economics, in Land Policy Review (September-October) says the water facilities act of 1937 is aiding the farmer and rancher of the West through small water developments on his own land. "With an appropriation of \$500,000 from Congress and an allotment of \$5,000,000 by the Farm Security Administration for the rehabilitation of needy farmers through the provision of necessary water facilities, the initial drive is being launched to promote a better use of land by means of small water developments. Specifically, the program will operate in 17 States--all the Northern and Southern Great Plains and the States to the west of them... Three agencies have been designated to cooperate with the Office of Land Use Coordination in carrying forward the program: The Soil Conservation Service, the Bureau of Agricultural Economics, and the Farm Security Administration. Knitting together these agencies is a Water Facilities Board, composed of one member from the SCS, the BAE, and the FSA, with a fourth member as chairman. 'Water facilities' is a term which includes ponds, reservoirs, diversion dams, wells, pumps and windmills, springs, stock-water tanks, and various auxiliary methods of small-scale irrigation. On no one project may more than \$50,000 be spent, and for any facility costing more than \$2,000, specific approval must be had from the Water Facilities Board. Thus, in no case will the program touch upon the type of development carried out by the Bureau of Reclamation. Though the Secretary has been given authority to lease or purchase lands to carry out this program, it is unlikely that any considerable amount of land on which to install these water facilities will be acquired by the Department this year. Ordinarily, the program will help farmers or groups of farmers construct facilities on private land..."

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Blue Ridge Parkway Marshall Sprague, in a Mount Mitchell (North Carolina) report in the Washington Star on the Blue Ridge Parkway, says that "145^{miles}/7 of it are completed except for paving, 55 miles are under construction and 100 miles are scheduled for completion during 1939. It is a product of cooperation, made possible by the teamwork of the States of Virginia and North Carolina, the Federal Departments of the Interior, Agriculture, Commerce and War, the WPA and the CCC. By next fall the spectacular stretch of 245 miles between Roanoke, Va., and Asheville, N.C., should be open to non-commercial traffic...Shenandoah National Park (262 square miles), Great Smoky Park (643 square miles) and the connecting Blue Ridge Parkway occupy the most rugged terrain in the East and are embraced in one of the boldest recreation schemes of all time. The altitude at Shenandoah ranges from 2,000 to 4,049 feet; in the Great Smokies up to 6,643. The Blue Ridge Parkway will be itself a high, elongated park, usually 1,000 feet in width, but expanding now and then into camping and hiking areas several miles wide. Besides joining the two major parks, it will provide easy access to fine outdoor facilities in the national forests of Natural Bridge and Jefferson in Virginia and of three Pisgah divisions in North Carolina. Plans have been announced by the National Park Service for establishing wildlife sanctuaries and stocking them with deer and turkey at points along the broad right of way of the parkway. Native grasses and shrubs will be planted on slopes bordering the road. Eroded fields will be restored to pasture; steep fields will be returned to forests. Small streams will be stocked and closed to anglers..."

Civil Service Examinations The Civil Service Commission announces the following examinations: Deputy United States Game Management Agent, \$1800, Bureau of Biological Survey. Applications must be on file by (a) November 15, if received from States other than those named in (b); (b) November 18, if received from Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, or Wyoming. Multilith Operator, \$1440, (for appointment in Washington, D. C., only). Applications must be on file by (a) November 14, if received from states other than those named in (b); (b) November 17, if received from Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, or Wyoming. Both examinations are assembled.

REA Program for Farmers J. K. Kendrick, Rural Electrification Administration, reports in Agricultural Leaders' Digest (October): "Since its inception in 1935, the Rural Electrification Administration has made allotments totaling more than \$102,000,000 with which some 425 cooperative organizations in 44 states are making service available to about 300,000 customers. With the current year's appropriation totaling more than the amount previously loaned, REA will be enabled to more adequately meet the increasing electrification demands of farmers and their families."

October 19, 1938

FSA Medical Aid Program. The Farm Security Administration announces that with the cooperation of the state medical associations and other professional groups of North and South Dakota it plans to provide emergency medical care for eligible low-income farm families of the two states at a cost of \$2 per month per family. Dr. W. W. Alexander, Administrator, said the medical aid plans for North and South Dakota were based upon the experience of the FSA with similar plans in these and 16 other states. Already, he said, 58,000 low-income farm families are being helped to obtain medical care at a cost they can afford through the cooperation of state medical associations. The programs in North and South Dakota, which should increase this total to more than 80,000 families, go into operation November 1, Doctor Alexander said. They have been approved by Dr. R. C. Williams, Medical Director of the FSA, and the state medical, dental, pharmaceutical, nursing and hospital associations. About 37,000 families in North Dakota and 40,000 in South Dakota, or about half the farm families of each state, will be eligible to participate, Doctor Alexander announced. He said the plan would be open to all families who are now being, or have been, aided by the Farm Security Administration. Doctor Alexander explained that the Farm Security Administration had embarked upon medical aid programs in the Dakotas and 16 other states because it had found medical attention was required in its efforts to rehabilitate low-income farm families and make them self supporting. "Quite aside from any humanitarian purposes," he said, "the Farm Security Administration has found, as a lending agency, that a family in good health is a better credit risk than a family in bad health. It has developed plans for medical care because it has found that good health is a necessary part of a family's rehabilitation."

Frozen Food Markets E. B. Reid, Farm Credit Administration, author of "Quick Freezing Thaws New Markets" in News for Farmer Cooperatives (October) says in part: "Dr. H. C. Diehl, in charge of the frozen-pack laboratory of the Bureau of Chemistry and Soils in Seattle, says that frozen foods combine the advantages of preserved foods with much of the character of fresh produce; hence out-of-season vegetables, shipped fresh, have considerably lost their exclusive appeal to the consumer...There is a growing interest not only in the Northwest but elsewhere on the part of farmers in the cooperative freezing of these products...Basically there is no reason why farmers' cooperatives cannot participate in this new form of food-preservation development," says Dr. Diehl. "Some of the problems which the cooperatives encounter in entering this field are common to the cooperative form of organization, and others are common to all frozen-pack operations...Dr. J. A. Berry, associate bacteriologist in the frozen-pack laboratory, points out that quick-frozen fruits and vegetables are still rather in the deluxe class and when people buy them they expect something good and something closely approximating the fresh product...Nothing but the very best varieties which have been tested and proved to be suited for quick freezing should be used. The Department of Agriculture has already done much work in testing varieties to determine their adaptability for freezing preservation."

DAILY DIGEST

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Vol. LXXI, No. 14

Section 1

October 20, 1938

**SOYBEAN
EXPORTS**

American farmers, harvesting their largest soybean crop in history, were back in the world's export market yesterday for the first time in a year, says an Associated Press report from Chicago. American beans are competing actively with the crop of the world's oldest and greatest producer--Manchuria. Export circles in Chicago estimated 200,000 to 300,000 bushels have been sold abroad this week and more business is under consideration. The largest shipment of beans by lake this year cleared the Chicago port early in the week. This cargo of 100,000 bushels was destined for Montreal, where it will be reloaded for ocean passage.

**NEW ENGLAND
FLOOD CONTROL**

Army engineers said yesterday that they would continue preparations for construction of six flood-control dams in the Connecticut and Merrimack Valleys of New England. They explained they would use \$4,750,000 of army reserve funds, and added that they were already negotiating with property owners for land. (Associated Press.)

**GROUP
MEDICINE**

The Civil Service Assembly of the United States and Canada was told yesterday the outlook for group medicine has gained considerably with the surmounting of legal obstacles and the increasing number of "well-trained doctors" who have "come to believe that group practice is the modern way to practice medicine." (Washington Post.)

**FTC WEIGHT
REDUCER BAN**

Harry Gorov of Chicago, first individual respondent to be enjoined by a court from advertising a food, drug or cosmetic held to be harmful to human beings under the Wheeler-Lea amendment to the Federal Trade Commission Act, yesterday filed his answer to the commission's complaint admitting all the material allegations, the commission announced last night. Gorov, distributor of "281," a weight-reducing remedy alleged by the government to endanger the eyesight of those who take it, and the Hartman chain of Chicago drug stores, which retailed the product, were named in the commission's complaint and were enjoined by a United States District Court at the instance of the commission from further advertising of the product.

October 20, 1938

Engineering Definition "According to an editorial in the current issue of Mechanical Engineering, the definition of an engineer has recently been brought up to date by that distinguished leader in the profession, Dr. Karl T. Compton," says an editorial in Agricultural Engineering (October). "'An engineer' he says, 'is one who, through application of his knowledge of mathematics, the physical and biological sciences, and economics, and with aid, further, from results obtained through observation, experiences, scientific discovery, and invention, so utilizes the materials and directs the forces of nature that they are made to operate to the benefit of society. An engineer differs from the technologist in that he must concern himself with the organizational, economic, and managerial aspects, as well as the technical aspects of his work.' Agricultural engineers will note with satisfaction Dr. Compton's specific inclusion of the biological sciences as a field of knowledge available for engineering application... Determining and modifying the characteristics and responses of living matter to forces and conditions is biologic science. Determining and teaching the principles of organization and application of this knowledge of organic potentialities for efficient agricultural production, with the aid of all the other scientific knowledge and engineering applications that can be brought to bear on the problem, to meet the most human needs at the lowest human cost, is agricultural engineering... Dr. Compton indicates that an engineer concerns himself further 'with the organizational, economic, and managerial aspects' when he 'so utilizes the materials and forces of nature that they are made to operate to the benefit of society!...This phase of the definition, too, fits agricultural engineers...The scientist talks of what is scientifically possible; the farmer in terms of the results he wants; and other engineers in terms of what is being done in other engineering fields. The agricultural engineer must interpret these viewpoints and fields of knowledge into his own technology; develop their possibilities and re-interpret their results into equipment, materials, and methods which farmers can use..."

Demand and Price Situation Improved demand for farm products, due to expansion of industrial activity and increased consumer incomes during recent months, is forecast by the Bureau of Agricultural Economics. In its monthly analysis of the demand and price situation, the bureau said that effects of increases in consumer purchasing power have not been reflected in consumer demand, due to "the obscuring effects of other conditions and partly to the usual lag in consumer buying power and demand." Noting that the advance of industrial production slowed down in September, the bureau held that this factor "may be considered as a favorable rather than unfavorable sign," since it may be due to conditions which will provide a sustained rather than irregular recovery. (New York Journal of Commerce, October 17.)

October 20, 1938

Farm Tenant Act Aid Paul V. Maris, Director, Tenant Purchase Division, Farm Security Administration, reports in Extension Service Review (October) on the first fiscal year of lending activities under the Bankhead-Jones farm tenant act. "The statistical highlight of this period," he says, "is that 1,879 nonowners from the ranks of tenants, sharecroppers, and farm laborers became farm owners... There were 38,065 competitors for the less than 2,000 loans available out of the 10 million dollars appropriated by Congress for the year ending June 30, 1938... Applications were restricted to the 325 counties designated by the Secretary of Agriculture... Thousands of inquiries came from other counties. Furthermore, the opportunity to apply came late, after most tenants were settled for the year; and applications were, in general, accepted for a short period of only a month or 6 weeks. The conclusion appears warranted that farm tenants, sharecroppers, and farm laborers are desirous of becoming farm owners... The borrowers are persons of substance who compare well with any group of farmers. They have made negligible contributions to the purchase price of their farms out of their own funds. They do expect to repay their loans to the Federal Government, and in many instances their annual payments of principal and interest will be less than they have been paying to their landlords in the form of rent. So the chances for repayment appear bright. Their equities, of course, are limited at the beginning. They have deeds in fee simple to their farms. The Government holds their notes repayable in 40 years at 3 percent, secured by mortgages on the farms. The farms purchased by these Bankhead-Jones borrowers are family-size farms... We have stated frankly that we do not want it said 5 or 10 years hence that the borrowers had no chance because the farms bought were not economic units... The average loan for the purchase and improvement of a farm was \$4,886. In many Southern States averages ran about \$3,400 per farm. In Mid-western States the average loan was about \$7,500 per farm. Six hundred and fourteen farms cost \$2,500 or less. That is a larger number than falls in any other price group. Four hundred and thirteen loans were between \$2,500 and \$3,500. The second-largest number falls within this group. Two hundred and sixty-two loans were between \$5,000 and \$7,500; 133 were greater than \$7,500; and 46 were for more than \$10,000. These figures afford an interesting insight into the cost of family-size farms purchased on the basis of appraisers' estimates of earning capacity and upon county committee certification as to value..."

USDA Plants in Brazil Carl Erlanson of the Bureau of Plant Industry recently presented to Brazil a gift from the United States Department of Agriculture of 1,000 young quinine plants, says a Rio De Janeiro report to the New York Times. The Brazilian Department of Agriculture will experiment throughout the republic to find out where the plants grow best.

October 20, 1938

Cobalt for Malnutrition "Cobalt as a corrective agent in the treatment of certain cases of malnutrition among Florida range cattle is the latest discovery of animal husbandry workers at the Florida Experiment Station," says Clyde Beale, assistant editor, Florida Experiment Station. "Research by Dr. Wayne Neal and Dr. Chester Ahmann over a two-year period revealed that minute doses--five to ten milligrams daily--of this comparatively scarce metal would correct malnutrition in cattle grazing on mineral-deficient ranges. This research also prompted Dr. Neal and Dr. Raymond Becker to add cobalt to the mineral supplements of iron and copper they developed several years ago for correcting 'salt sick' in Florida cattle. Since Dr. Neal and Dr. Ahmann obtained their findings, cobalt has been proven as a corrective in cases of malnutrition in cattle, hogs and goats in various sections of the state. Several times the doses given by the research workers--five to ten milligrams--have been administered to animals with beneficial results. Cattle suffering from cobalt deficiency usually show a long rough coat of hair, scaly skin, listlessness, retarded development of sexual characteristics, gauntness due to loss of appetite, and muscular atrophy. While exact conclusions have not yet been made, it is believed that soil containing less than three parts per million of cobalt is deficient. As a supplement or drench for livestock, cobalt may be administered in two forms--either cobalt chloride or cobaltous sulphate."

Device Tests Soil Moisture A note from the Bureau of Agricultural Engineering in Agricultural Engineering (October) says: "The first public demonstration of the 'availabilimeter', designed by R. B. Allyn, of the bureau, for determining the amount of moisture in soil available for plant use, was given recently at Medford, Oregon, under the auspices of the Oregon Experiment Station and the Fruit Growers League. Field calibrations are being made on approximately 25 irrigation plots to verify previous laboratory calibrations made with this instrument. Moisture determinations made by the availabilimeter and duplicated by the oven method have shown remarkable agreement. It is expected that with corrections now in progress, deviation in results indicated by the two methods will be reduced to 2 percent. By means of the availabilimeter, moisture samples at five locations at each of the three-foot levels, 15 samples in all for an entire plot, can be taken and the moisture determinations made, all within 30 minutes, whereas the oven method, with the necessary calculations for this number of samples, usually requires three days."

Frozen Food Industry Better Fruit (October) in an item reporting the meeting of the American Institute of Cooperation, says: "The frozen pack for small fruits and vegetables was termed the most significant development in the food field in the last half century, by H. C. Diehl, Seattle, director of the federal frozen pack laboratory (Bureau of Chemistry and Soils). The growth of this youthful industry has been amazing. In 1928 the frozen pack in this country was essentially an experimental one. In 1937, less than 10 years later, almost 58,000,000 pounds were packed in the United States, of which approximately 20,000,000 were packed in the Pacific Northwest."

DAILY DIGEST

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Vol. LXXI, No. 15

Section 1

October 21, 1938

**SYNTHETIC
YARN PLANT**

A major upheaval in the economic position of Japan through loss of its huge market in the United States for raw silk was predicted by hosiery producers in New York City yesterday, when a manufacturer of acetate-process yarns and fabrics announced plans for erecting near Pearisburg, Virginia, a \$10,000,000 plant for production of an entirely new synthetic yarn that can be used in all textile fields. Hosiery is virtually the only division of textiles in which rayon has not yet made serious inroads. Hosiery, especially for women, has remained almost exclusively an outlet for raw silk because synthetic yarns produced up to now have been too lustrous, too inelastic and insufficiently sheer for production of hosiery for the American market. So great have been rayon's inroads into the raw silk market that relatively minor qualities of silk are used in fields other than hosiery. (New York Times.)

**STOCKYARDS
CASE HEARING**

Another chapter in the dispute between Secretary Wallace and the commission men at the Kansas City stockyards was begun yesterday when the Supreme Court heard opening arguments over what shall be done with \$586,000 which the Secretary thinks should go to the farmers, but is also demanded by the commission brokers. The \$586,000 represents the difference between what the commission men would have collected in fees from June 1933 to November 1937, under former rates and under those established by the Secretary. (New York Times.)

**U.S.-BRITISH
TRADE TREATY**

A London report by the United Press says a serious hitch in British-United States trade treaty negotiations has occurred, mainly over American efforts to increase automobile exports. It was understood that the differences between British and American trade experts were such that the British cabinet may have to break off the trade talks. Prime Minister Chamberlain is known to have felt that early culmination of the pact would be a valuable contribution to world peace, similar to the Anglo-Italian friendship agreement.

GRAIN RATES

A 6-cent-a-bushel reduction in freight rates on grain shipped from Chicago to North Atlantic ports for export went into effect last night. The Interstate Commerce Commission late yesterday refused to suspend the reduced rate. (Associated Press.)

October 21, 1938

F.S.A.Farm "Improving the status of farm tenants through written Tenant Leases leases rather than through expensive attempts to promote farm ownership is a new approach to the tenancy problem quietly in progress under the Farm Security Administration," says the New York Journal of Commerce (October 18). "Since creation of the Federal land banks in 1917, emphasis has been on ownership. But tenancy continues to increase several times as fast as it can be eliminated by existing Federal aids, including the Farm Tenant Loan Corporation. It is estimated that 80 percent of leases are oral so that the turnover is as high as 1,000,000 tenants per year, involving 40 percent of leased farms in some areas. Written leases, it is argued, will give tenants incentive to improve farms and use proper crop methods so that farm investment risks on the part of owners and mortgage holders will be reduced. Although the plan has been applied only in connection with F.S.A. rehabilitation loans, a heavy run of inquiries from landlords indicates widespread voluntary adoption. Standard lease forms, adaptable to the laws of all States, have been printed in large quantity."

Seed Dockage Inauguration of a dockage inspection service for Inspection country-run forage seeds, to be known as the Seed Dockage Inspection Service, is announced by the Bureau of Agricultural Economics. It is proposed to start the service immediately with inspections of timothy and timothy mixed seed, and to add other forage seeds later. The determination of dockage, it is explained, is one of the most important problems in the marketing of rough-cleaned or country-run forage seed from producing centers or shipping points to larger concentration points or important markets. Heretofore, this determination has been made largely by the purchaser or receiver of the seed at destination.

Game Farm How immigrant game birds are being used to save rare Saves Birds native quail and other species from extinction was related to the American Ornithological Union recently by Vernon Bailey, veteran Washington naturalist, formerly a scientist of the Biological Survey. During the past summer, Mr. Bailey reported, he visited the game farm conducted by Mr. and Mrs. J. Stokely Ligon near Carlsbad, N. M. The Ligons raise thousands of ringneck pheasants and Chukar partridges, imported species from the Old World, which they sell to state game commissioners and private shooting clubs. Their real interest, however, is in rare native game bird species that are threatened with extinction. Among the native birds they are successfully raising are all species of bobwhite quail, prairie chicken and western wild turkey. One species, the masked quail, has for some time been extinct in the United States, and breeding stock had to be obtained in Mexico. Eventually, the Ligons expect to dispose of breeding pairs to persons and organizations desiring to restock native ranges with species that have been driven out by over-shooting, fire or cultivation. (Science Service)

October 21, 1938

Silver Tarnish Prevention A new way of preventing silver tarnishing, with promise of practical industrial application, has been developed through metallurgical research in the Cambridge (England) University laboratories of Prof. R. S. Hutton and Dr. U. R. Evans, says a Science Service copyright report from Cambridge. It consists of developing an invisible coating of beryllium or aluminum oxide over the silver--a colorless layer of the stuff of beryls or sapphires. Drs. G. J. Thomas and L. E. Price constituted the research team. Modern science cooperated with an ancient British institution, the Worshipful Company of Goldsmiths, founded in 1320 and still the authority for the hall-marking of sterling silver and for controlling the British coinage. The tarnish was measured by various methods, ranging from visual inspection to a precise electrochemical analysis, which dissects various constituents in the millionth of an inch tarnish film. This film was found to consist of not just silver sulfide, but also of silver sulfate, cuprous oxide, and cuprous sulfide, and the methods employed enabled these tarnish products to be quantitatively estimated. The protective effect of the processes is astonishing so far as the prevention of tarnishing is concerned, but it is too early to speak with assurance on wear resistance, although the well known hardness and abrasion resistance of the oxides of aluminum and beryllium offer hopeful prospects.

PCA Loans for Farm Youth "Practical teaching in the use of credit is now available to members of 4-H clubs and high-school students in vocational agriculture through a cooperative plan by which funds for the purchase of animals to be used in the club or vocational class projects can be borrowed from production credit associations," says News for Farmer Cooperatives (October). "Of the 41 production credit associations in the Ninth Farm Credit District, 23 have loans on 48 projects being conducted by 4-H clubs or vocational agriculture classes. Approximately 240 boys are taking part in these projects. To make the documents involved in the credit transactions legal and to permit rediscounting the notes with the Federal Intermediate Credit Bank, the boys in the project are required to have a sponsor. This sponsor may be the county agricultural agent in charge of the club, the teacher of the vocational agriculture class, or some other person who is taking an active interest in the boys. The loans are made in the name of the sponsor, but each boy engaged in the project and deriving a part of the loan proceeds also signs the note."

Pellagra Remedy Dr. W. H. Sebrell, U. S. Public Health surgeon, described the common southern disease of pellagra as "little short of a national disgrace" in an address at Duke University during a symposium on medical problems. The remedy for pellagra in the South, he said, is for the South to produce its own food supply. "Every tenant farmer and sharecropper must have lean meat, milk and vegetables for his family, and the cheapest way to accomplish this is for him to produce most of his own food," he said. (Associated Press.)

October 21, 1938

Plum, Peach Varieties "A new plum and three new peach varieties have been released by the Bureau of Plant Industry," says J. H. Currie in Country Gentleman (November). "These new varieties were developed by Dr. W. F. Wight, U.S.D.A. fruit breeder at the Palo Alto, California, Station. These introductions have been extensively tested in the various fruit sections throughout California and have shown great promise. The three new peach varieties are not being recommended for the southern part of California...The plum seems well adapted to both mild and cold winters. The Penryn peach is a cross of Maxine and Leader. It is primarily intended as an early freestone dessert variety, ripening at about the same time as the Maxine...The Nestor peach is introduced primarily as a drying peach. It is a result of a cross of Muir and Palora...The Ferida peach is a clingstone suitable for shipment or canning. It ripens at about the same time as Tuscans and may eventually replace this variety...The Padre plum closely resembles the popular Santa Rosa plum. It is a cross between the Santa Rosa and Wickson...It has proved to be a fine shipping plum."

Agricultural Planning Nature (London, October 1) contains an address by Prof. R. G. Stapledon, in which he discusses long-term agricultural policy. He says in part: "I like the American idea of loans with a working plan; of loans with advice. It is unreasonable to expect that a man devoid of working capital, and probably the son of a man similarly devoid, should have all the knowledge of how best to farm, and particularly of how best to improve land (in which art he will necessarily have had no sort of experience), in sympathy with adequate working capital suddenly provided for the purpose. Advice, and some measure of control, must necessarily go with credit facilities, and in so far as breaking up grassland is concerned I like still better the American idea of group loans, and of a 'master borrower'. The 'master borrower' in this case would be set up as a contractor with tractor and necessary equipment to break up the grasslands. I like also the American idea of being boldly eclectic and scheduling particular districts as being eligible for their rehabilitation loans. There are innumerable districts that should be similarly scheduled and similarly helped in Great Britain. The breaking up of derelict grassland is to be helped forward not only by loans, but by a reorientation of such working capital as the farming community possesses, and also, I think, by a reorientation of the monetary and other arrangements existing between landlord and tenant. Ley-farming in my view affords great scope for such reorientation, for it would make possible, and on a general scale, a variety of methods of share farming. For example, one might conceive of a mechanized wheat grower operating over a large number of neighbouring ley farms on a share basis; another man on a share basis might be running the poultry, the proprietors themselves being primarily interested in the adequacy of the rotation and farming operations, and possibly in one major product--milk, shall we say?"

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Vol. LXXI, No. 16

Section 1

October 24, 1938

WORLD WHEAT PRODUCTION

The Agriculture Department estimates world wheat production for 1938-39 at 4,365,000,000 bushels, the largest on record. This is an increase of about 20,000,000 bushels over the department's estimate made a month ago and about 525,000,000 bushels greater than the 1937-38 harvest. The Department said total world supplies were approximately 4,960,000,000 bushels, or about 600,000,000 greater than a year ago. (Associated Press.)

EXPORTS TO SOUTH AMERICA

Warren Lee Pierson, president of the United States Export-Import Bank, outlined a four-point program to improve United States exports to South American countries. He said United States exporters could compete favorably with the subsidized exports of other countries through adequate credit facilities. He saw no need for subsidizing exports from this country. He outlined the four points as "good quality, reasonable prices, adequate credit facilities and a consistent foreign-trade policy, not merely a fair-weather policy." (Associated Press.)

WALLACE IS FORUM SPEAKER

Efforts of the administration to cope with the problem of farm surpluses will be the subject of an address by Secretary of Agriculture Wallace in the National Radio Forum tonight, says a report in the Washington Star. It is heard in Washington over WMAL at 10:30 o'clock. Secretary Wallace will speak on "Making Abundance Work for the American People."

GROUP HEALTH SURVEY

Federal, state and city administrators, composing the Civil Service Assembly of the United States and Canada, have voted to explore fully the possibilities in group medicine. Closing its thirtieth annual conference, the assembly aimed to disclose what types of group health are suited to the carrying needs of governmental agencies and what types now are functioning. (Washington Post.)

SEPTEMBER FARM INCOME

The Bureau of Agricultural Economics estimates that farm cash income during September was \$764,000,000. This includes \$27,000,000 in government benefit payments. The farm cash income including benefit payments during the first nine months of this year, was estimated at \$5,377,000,000, or 13 percent less than the \$6,170,000,000 income for the same period last year. (Associated Press.)

October 24, 1938

Louisiana
Sugar Cane

A New Orleans report in Facts About Sugar (October) on the Louisiana sugar cane crop says that private reports are in line with the latest estimate by the United States Department of Agriculture, which places the prospective cane production in Louisiana this season at 6,413,000 short tons, compared with a 1937 production of 5,240,000 tons. The yield per acre is estimated at 22.5 tons. When these figures are compared with the "mosaic disease" years they take on almost unbelievable proportions. They have been made possible through the untiring efforts of plant breeding experts of the United States Department of Agriculture and the cooperation of the Louisiana Experiment Station staff and the cane farmers themselves. Louisiana is very definitely back in the picture as a sugar producing territory.

Wild Game
Preservation

Sir Thomas Comyn-Platt, author of "Wild Game and Preservation" in the Nineteenth Century (London, October) says: "It is only within comparatively recent years that governments throughout the world have turned their attention to the question of wild game preservation. The United States, Africa, Canada, India, however, are today one and all keen preservationists, and the interest is spreading... In opposition to the extinctionist, wild life, placed on the lowest basis, has certainly a commercial value which should not be overlooked. After all, no game, then sportsmen, guns, ammunition, licenses disappear, all of which go to swell any government exchequer. And there are many other advantages in preservation. Under which heading, material or esthetic, a national game reserve should be classed---such, for example, as that in South Africa--is a little difficult to say. There, in the Kruger Park where wild animals of every kind roam freely, shooting is prohibited entirely; the sportsman gives way to the tourist. The government nevertheless scores financially, though ostensibly preservation is the one object in view. One might describe such places as natural 'zoos,' for the game moves about freely, can be seen and multiplies undisturbed. This is the ideal of preservation. The next best thing is a 'reserve,' which is far more common. Such areas are carefully watched; there are strict game laws and close seasons, and the sportsman is strictly limited as to his 'kill.' The reserve in Ceylon is a case in point. Here again, the government scores by reason of licenses, the sale of munitions, etc., while at the same time wild life is carefully preserved..."

Finnish
Tariffs

A Helsingfors report to the New York Times says Finland's foreign trade relations were placed on a more stable basis recently when Parliament accepted the government's bill for the first permanent tariff. Previously import duties were fixed for only one year. To protect farmers Parliament raised the duties on wheat and rye. Finland is now almost self-supporting in cereal production. While Finnish exports to the United States continued to decrease this year, imports have risen, making Finland's adverse balance increase from 49,400,000 Finnish marks to 99,100,000 marks.

Farm Social Adjustments Carl C. Taylor, Bureau of Agricultural Economics, in Land Policy Review (September-October) writes on "The Human Aspects of Land-Use Planning." He says in part: "It is more than likely that a real social analysis of the people living in so-called bad land areas will contribute directly to the initiation of a number of programs not related to removal or resettlement of any great number of families, but definitely related to developing the maximum human carrying capacity of the areas in which these families now reside. A program for an area with relatively good soil but steep topography, interspersed with small creek valleys, is fairly easy to visualize. There are many such areas in the mountain regions of the eastern part of the country. The program will probably require reforestation of the steepest lands, terraced grass culture for lands not susceptible to row culture, and terracing and strip farming for all other than the bottom lands. Merely to recite such a prescription presents nothing new by way of a program, but to initiate such a program which assumes that the so-called self-sufficient farming which the people of the area have always practiced can be made twice as efficient as it has been, and thus the material standard of living of the people be definitely raised without destroying their love for a particular habitat, disrupting their community life and changing their whole cultural pattern, does present a new approach to a difficult problem."

Statistical Service By a cooperative agreement recently concluded between the U.S. Department of Agriculture and the Iowa State College, the statistical laboratory of the college will undertake to perform important services for and with the department, and it is increasing both staff and equipment. The purpose of the enlarged laboratory is research in the statistics of agriculture and associated statistical theory. One project is the study of the relation between weather and crop yield. Weather conditions to be considered are change and range of temperature, rainfall and wind. Partial census methods are used for the estimation of acreage and condition of the crop, for the sake of early prediction of yield. In the study of weather prediction, the Massachusetts Institute of Technology is cooperating. Products to be given early consideration are corn, wheat (with the aid of Kansas State College) and cotton. By the study of sampling techniques it is hoped to learn significant economic and social facts of rural life more efficiently and reliably. A further topic of investigation is the analysis of time series. (Science, October 21.)

Sulfanilamide for Plants Sulfanilamide, new weapon against certain types of bacteria, appears in a new role in research reported by Dr. N. H. Grace of the (Ottawa) National Research Laboratories. The chemical can be used also as a stimulant for the growth of plants. Dr. Grace states in the Canadian Journal of Research that rapid growth has been obtained in such diverse plant types as yeast cells and cuttings of higher plants, by the application of dilute solutions of sulfanilamide. (Science Service.)

October 24, 1938

Conservation Under the title "The Farmer Practices Public Administration," Albert Lepawsky, Federation of Tax Administrators, Districts. describes soil conservation districts, in the National Municipal Review (October). "The American farmer has scored another victory in the field of public administration," he says, "thereby strengthening the belief of some observers of governmental affairs that agriculture, on administrative levels, is one of the most alert economic interests of the country. This time, the farmer's achievement is the establishment of a new set of governmental agencies known as soil conservation districts, which have been given power (1) to build and operate cooperative soil conservation projects; and (2) to regulate the individual farmer's use of his land, through the enforcement of soil conservation regulations. The objective of the soil conservation district is of first rank importance in national affairs. The new type of district not only seeks to conserve the national resources and to stop the widespread economic and human suffering resulting from the wastage of the soil and the impoverishment of the farm, but it also gives some encouragement to public administrators who share the belief that the object of government is to get certain essential jobs done over the barriers of our legal folklore and the hurdles of our administrative habits... What is really unique about the power of the new soil conservation district is the assignment to a local governmental subdivision of a wide range of erosion control powers going so far as the enforcement of detailed and extensive land-treatment and land-use regulations binding upon the individual farm. In other words, rural zoning and planning in the United States is literally being brought down to earth... What may help to make the apparently drastic administrative measures of the soil conservation districts palatable to the courts, as well as to the farmers, is the large measure of direct participation and democratic control accompanying the district's powers... Another concession to sound administration is to be found in the doctrines of decentralization which dominates the district. The plan was fostered by the federal government, chiefly the Department of Agriculture, but the entire scheme is based on a skillful balancing of national leadership and local initiative..."

Highway Surveys "Surprising facts are emerging from the nation-wide highway-planning surveys, according to a brief summary of one phase of the work presented by Thomas H. MacDonald (Chief, Bureau of Public Roads) before the Institute of Traffic Engineers recently," says Engineering News-Record (October 20). "For example, it has been found that strings of cars follow each other on the road at 50-mile speed with only 1 1/2 seconds spacing, but that fully two-thirds of all cars drive even closer to the one ahead. Another fact discovered is that heavy trucks slow up to five miles per hour when ascending a 6 percent grade, tying up all the traffic behind them as they slow down. Through these and similar observations, measurement in the field is furnishing proof of the close relation between vehicle performance, road conditions, and human habits, a relation long recognized in general terms..."

DAILY DIGEST

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Vol. LXXI, No. 17

Section 1

October 25, 1938

WHEAT,
COTTON,
CORN

The Crop Reporting Board estimated yesterday the nation's wheat supply on October 1, including stocks in interior mills, elevators, warehouses and on farms at a total of 581,564,000 bushels. This compared with 481,260,000 bushels on the same date last year. Present stocks in interior mills, elevators and warehouses, estimated at 174,575,000 bushels, were said to be the largest for the five years for which records are available. (A.P.)

The Bureau of Agricultural Economics took note yesterday of some improvement in the American cotton situation. It found encouragement in a 3/4 cent a pound price rise during the five weeks ended October 21, in a more favorable European political situation and improvement in domestic business conditions. It also noted a heavy movement of American cotton into government loan stocks. (A.P.)

The movement of corn acquired by the government through default of farmers on 1937 loans is under way on a large scale, according to grain trade estimates yesterday. Receipts of corn at Chicago totaled 1,157 cars, one of the largest supplies for a single day in several years, and traders estimated approximately 75 percent of this volume was government corn consigned to elevators. This grain is not routed for market. (A.P.)

HULL GETS
AWARD

Secretary of State Hull received yesterday the first Robert Dollar memorial award as the individual who contributed most toward advancing American foreign trade in 1937. John F. Tinsley, chairman of the Award Committee, and E. P. Thomas, president of the National Foreign Trade Council, presented the citation and plaque. Mr. Hull, in accepting it, said American foreign commercial policy was "consecrated to the task of seeking economic disarmament and the liberalizing of world trade, for only thus can we hope to build stable foundations for world peace." (A.P.)

FTC CREATES
NEW DIVISION

The Federal Trade Commission last week paved the way for possible utilization of the powers over advertising given to the commission by the new Wheeler-Lea act, it was learned yesterday. The commission abolished its special board, established in 1929, and created in its place a Radio and Periodical Division to review advertising and determine when proceedings should be started. Head of the new division is P. B. Morehouse. (New York Times.)

October 25, 1938

Mechanical Corn Pickers Mechanical corn pickers are beginning to have an appreciable effect on farm labor usually employed temporarily at this season, says a Chicago report by the Associated Press. Farm implement manufacturers report they expect sales of pickers to exceed those of last year when about 22,000 went into service. Many farmers, after finishing work in their own fields, do custom work with their machines, charging from \$1.50 to \$2 per acre. Ray Murray, former Iowa State Secretary of Agriculture and now administrative assistant in the Iowa WPA office, who made a study of farm machinery equipment and its relation to labor, said that "within five years harvesting corn by hand probably will be as outmoded in Iowa as cradling grain." Agricultural economists at the Illinois College of Agriculture, after a study, reported the average cost for husking corn with a two-row mechanical picker at 2.3 cents a bushel, as compared with 4.5 cents by hand labor. In recent years farmers have reported difficulty in obtaining temporary help for the corn harvest, but reports from throughout the Corn Belt indicate an ample, and in some instances an over-abundant, supply of help this year.

Pectin from Waste Apples G. L. Baker and M. W. Goodwin, of the Delaware Experiment Station, are authors of "Pectin From Apple Thinnings" in the Fruit Products Journal (October). "Gerritz and Kertesz have suggested that the thinnings and 'June drop' apples be considered as a source of pectin. Since any utilization of these waste apples may be considered a profitable one, this suggestion may be of value. However, the recovery of pectin is complicated, chiefly by the presence of starch. The starch content of thinned apples is high. Bigelow, Gore, and Howard have shown that from 2 to 4 percent of the weight of the apple at this stage of ripening is starch, or, in other words, the starch amounts to twice the pectin content. The high starch content will interfere with the filtration and the clarification of pectin extracts prepared by methods which allow the starch to remain in the pomace and disperse during the pectin extraction. Methods for removal of starch from ripe apple pomace have been developed at the Delaware Station, and it has been found possible to modify and apply these methods to the recovery of pectin from thinnings and early drop apples so that the greater portion of the apple starch is removed previous to the extraction of pectin. The result is an extract of greater purity as well as clarity."

Agricultural Cooperatives Agricultural co-operative marketing and purchasing associations are doing a gross business of \$2,750,000,000 annually, it was announced recently. S. D. Sanders, co-operative bank commissioner, Farm Credit Association, said: "Agricultural co-operation in the United States appears to be in a stronger position today than at any time in its 70 years of history. Membership and business of purchasing co-operatives have more than doubled during the past ten years." He said that nearly half of the American farmers are marketing farm products or purchasing supplies from 15,573 established associations. (Press.)

New England Forest Damage "Amid the hurricane-tangled forests of New England is being waged a battle by an army of 40,000 men to prevent loss of life by possible forest fires, and to salvage fallen timber which amounts to ten times the normal annual cut in that area," says Henry N. Dorris in the New York Times (October 23). "The September hurricane felled whole forests of white pine and other timber highly inflammable when dry, resulting in a situation which the United States Forest Service and other Federal and State agencies regard as one of the most serious ever faced by the New England States. Over thousands of square miles of territory, but particularly in the Vermont, New Hampshire and Massachusetts rural areas, the storm's toll was put at 3,723,000,000 feet of timber. This was estimated to have an actual value of \$11,500,000. As soon as the extent of the damage was realized the Forest Service sent Earl W. Tinker, assistant chief of the Division of State and Private Cooperation, to Boston, where he established an emergency headquarters through which most of the forest fire prevention and timber salvaging operations are now being carried out. The timber now on the ground must be processed into lumber or placed in lakes or ponds prior to next July 1, if salvaging is to be successful. Forest Service officials estimated that from 62 to 75 percent of the fallen timber could be salvaged if there was sufficient labor in time. The Federal Government has a big stake in the fallen timber in its two great national forests, the Green Mountain and White Mountain forests, and will go along with whatever plan is decided upon for the whole hurricane area..."

N. Y. Breeding Service American Agriculturist (October 22) reports that 50 dairymen in New York have formed the first state association for the artificial breeding of dairy cattle. "The membership is made up of dairy farmers who live within a radius of about twenty miles of Ithaca, and who believe in the possibilities of greatly improving the quality of dairy cattle by means of artificial insemination. The first association is located at Ithaca to make it possible for the research agencies at the colleges of agriculture and veterinary medicine to work closely with the supervisor in the development of techniques. Breeders are joining the association with the understanding that it is an experiment and they will regard it as such until it has been proven otherwise under practical dairy farming conditions. By April 1, 1939, it should be possible for the extension service and the farm bureaus of the state to extend this kind of an organization to other sections. The first association should provide experience in methods of organizing such associations and in the handling of details for the mating of bulls of proven ability to large numbers of females.

Traveling Cold Food Lockers Business Week (October 22) describes a new system of cold storage lockers in Washington Court House, Ohio. "Here," it says, "the storage lockers, which are rented to customers, find themselves below floor level in a warm room. The 400 lockers are arranged in tiers of four. A traveling electric hoist raises and lowers each tier from its floor compartment, as needed, not unlike the operation of an artificial ice plant. Thus there is no cold

Traveling Cold Food Lockers (continued)

room, no door-closing. Refrigerating compressor, cooling coils, electric motor, and all other items of refrigerating equipment, which are the same in type as those used in conventional storage practice, are also located underfloor. **Sizes** and capacities of equipment can be smaller than usual. Just the fact that only one tier of lockers is exposed to warmth at a time brings about considerable operating economies."

assembled

Civil Service . . . The Civil Service Commission announces the following / Examinations examinations: Junior Engineer, \$2,000; Optional subjects: Aeronautical, Agricultural, Architectural, Ceramics, Civil, Electrical, Mechanical, Naval architecture, Structural steel and concrete; Applications must be on file by November 14 if received from States other than those named in (b); (b) November 17, if received from Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, or Wyoming. Dairyman-Farmer, \$1860; Junior Dairyman-Farmer, \$1500, Bureau of Indian Affairs, Department of the Interior; Applications must be on file by November 22, if received from States other than those named in (b); (b) November 25, if received from Arizona, Colorado, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, or Wyoming. All these examinations are assembled.

Synthesized Vitamin E "The synthesis of alpha tocopherol, a substance equivalent to vitamin E that has been successful in curing sterility in rats and which is declared to have tremendous practical importance in curing sterility in farm animals, or even in humans, has been accomplished by a group of University of Minnesota chemists headed by Dr. Leo Irvin Smith, head of the division of organic chemistry," says Northwestern Miller (October 19). "One of the natural sources of vitamin E is wheat germ. Synthetic production of the vitamin is expected to facilitate quantity production." An abstract of Dr. Smith's paper says in part: "The work is one part of a co-operative research program undertaken jointly by three laboratories; the synthetic experiments were carried out at the School of Chemistry of the University of Minnesota; degradative and physical studies were carried out in the laboratories of Merck & Co., Inc; and biological studies and assays were carried out at the University of California. The implications and importance of the work naturally lie largely in the field of biology, both human and animal. It is not known with certainty that the tocopherols will cure any cases of sterility other than those occurring in rats and induced by a deficiency of the vitamin. The work in this field so far has been handicapped by the lack of an adequate supply of the pure vitamin, but now, with a successful synthesis of the vitamin, a reasonable supply of the pure material can be made available so that the clinical and other biological work can be put on a sound basis and can be vigorously prosecuted. Should the vitamin really prove to be a cure for many cases of sterility, it is easy to see the value to mankind not only in human applications, but the enormous economic advantage to farmers and live stock growers in the treatment of sterility in farm animals, and in the increased fertility among domestic fowls."

DAILY DIGEST

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Vol. LXXI, No. 18

Section 1

October 26, 1938

**U.S. HEALTH
PROGRAM**

"Dr. Thomas Parran, surgeon general of the U.S. Public Health Service, revealed in an address at Kansas City last night that the Federal Administration plans to 'take the next steps soon in a national health program' which will extend the principles of the Social Security Act into medical care," reports Hugh O'Connor in the New York Times. "Addressing about 4,000 health experts in public, welfare and industrial service, attending the annual meeting of the American Public Health Association, Dr. Parran said that prevention and cure were inseparable functions and belonged to public health departments. The proposed medical care, he explained, would be extended not only to the millions of public dependents but also to the equally numerous millions of those who are self-supporting ^{but cannot afford}/the additional cost of a doctor..."

**AUDUBON
MEETING**

A flexible, rather than a fixed, season for shooting waterfowl was urged upon the Federal Government last night by Dr. Robert Cushman Murphy, president of the National Association of Audubon Societies. Dr. Murphy explained that the "flexible season" policy was favored by his organization as the best means for safeguarding wildlife. Dr. Ira N. Gabrielson, Chief of the U.S. Biological Survey, outlined his bureau's efforts to minimize the harmful effects of certain poisons used to destroy predatory animals. Prof. J. R. Dymond, of the Royal Ontario Museum of Zoology, reported that Canadian timber was approaching the vanishing point because of wasteful handling. James A. Foote, executive secretary of the association, urged the establishment of a national primeval park system to include the great national parks of the West. (New York Times.)

**SURPLUS
CITRUS FRUIT**

The National Citrus Conference of growers and government officials yesterday completed plans for disposal of 16,000,000 boxes of surplus grapefruit and oranges which threatened to glue the citrus market and send prices crashing to disastrous levels. Adoption of a cooperative agreement to dispose of 10,000,-000 boxes of grapefruit came after the conference agreed to a program to remove 6,000,000 boxes of oranges from commercial channels. Both plans call for government purchase of surplus, high-grade fruit for distribution among the needy. (United Press.)

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Farm Debts Decline A decline in the mortgage and other indebtedness of farmers in the 20 years ending with 1937 is shown in a new bulletin of the Department of Agriculture. Farm mortgage indebtedness increased from \$3,320,470,000 in 1910 to \$7,857,700,000 at the beginning of 1920. By 1928 the farm debt totaled about \$9,469,000,000. A 17 percent decrease--largely through foreclosures--occurred from 1930 to 1935. On January 1, 1937, the estimated farm mortgage indebtedness had been reduced further to \$7,254,821,000. Personal and collateral loans to farmers by commercial banks increased from about \$1,608,000,000 in 1914 to a peak of nearly \$3,870,000,000 in 1920, and then declined almost continuously to less than \$600,000,000 in 1936. The reduction since 1920 was accompanied by a decrease of almost one-half in the number of banks operating in the agricultural areas. From June, 1936 to June, 1937, these loans increased 10 percent. (Wall Street Journal.)

Melons for the East "Two new items about melons should interest all of us who like to lean on our own gardens for exquisite summer products," says J. Sidney Cates in Country Gentleman (November). The first is that the famous U. S. wilt-resistant No. 45 cantaloupe, which not only saved the Imperial Valley cantaloupe industry but stepped up the product to a new level of quality, is proving well adapted under Eastern conditions. At Arlington Farm last year it graded tops of all melon sorts tried. It is worth trial planting far and wide. The other item--looking to the future this time--is that we have in prospect a honeydew-type melon adapted to humid Eastern conditions. The trouble with the honeydew in the East has been that mildews destroy the leaves long before the melons ripen. This means low sweetness and insipid taste. But at the big Government horticultural crop-breeding establishment set up near Charleston, South Carolina, and financed of course by the Jones-Bankhead appropriation, keen plant breeders are at the job of developing honeydew-type melons so resistant to mildew and other leaf diseases that the melons will ripen with full sweetness and quality, the leaves functioning unimpaired until the ripening process is complete."

WPA Microfilm Encyclopedia Microfilm, the world's most modern way to reproduce text or pictures, is being used to make available a vast encyclopedia of research accomplished by 2,500 WPA projects, says a Science Service report. Through cooperation with the American Documentation Institute, some 250,000 pages of research reports on subjects ranging from accidents to zoology are made available on demand in the form of space-saving microfilm--images of the originals reduced in size to about a tenth their dimensions. The strips of microfilm look like motion picture film and are read by use of a special magnifying reading machine, that is about the size of a typewriter and costs less. It costs about one cent a page to have the microfilm made. The Works Progress Administration has just published a printed volume, "WPA Index of Research Projects," as an index and guide to the material available.

October 26, 1938

Grand Coulee

Farming

Stuart Chase, author of "Great Dam" in the November Atlantic, describes the Grand Coulee Dam. He says in part:

"The area to be irrigated is almost as large as Connecticut. It is estimated that two grand canals coming down from the balancing reservoir, one to the west, one to the east, and their feeders, can transform 1,200,000 acres from semi-desert to a lush garden spot. The skeptic can cross the river and a few miles to the west see the Yakima Valley, as lush a garden spot as you please, already reclaimed from desert by irrigation. In 1900 there were 13,000 people in the Yakima Valley; now there are 110,000. First and last, Yakima and many other irrigation projects have had a lot of trouble with land speculators. At Grand Coulee for once the dirt farmer will get a break. Congress has passed a law forbidding land speculators to practice here. The area will be condemned and valued as desert land. The bona fide settler will pay desert prices--say \$7.50 an acre. If he later sells, it must be at desert-land valuation--plus his tangible improvements, of course. The farmer will be charged by the government, without interest, for his share in the irrigation investment, plus his share of the maintenance cost of getting water on his land. A single man will be entitled to not more than forty acres; a family to not more than eighty. A total family investment for land, water costs, house, barn, tools, machinery, electric power connection, has not been determined. Estimates run from \$8,000 to \$10,000. A well-run irrigation project is agriculture with the weather risk eliminated."

Radio Cuts

Forest Fires

"Radio is the latest device to join the fight against forest fires in New York State," says Arthur G. Draper in the New York Times. "Though barely out of the experimental

stage as an aid in fighting forest fires, the radio has tended already to cut down the tremendous annual toll of timber, wildlife and recreational resources taken last year by 1,614 forest fires. Modern methods of fire-fighting are becoming more and more essential, for in recent years the number of forest fires has increased. Two reasons are given for the increase: the ever-mounting number of persons using the woods for recreation and the fact that now every fire, however small, is recorded. On the other hand, there has been a steady decrease in the average size of fires... This year for the first time three fire trucks were equipped with two-way radio sets. One of them was stationed in the Catskills and the other two in the Adirondacks. In addition, experiments were carried on, in conjunction with the United States Forest Service, with a portable radio unit, weighing barely 25 pounds. For the past few years radio communication has been successfully maintained between a Conservation Department airplane and Pocatello observation tower near Middletown..."

Martin Heads

Poultry Lab.

The appointment of Dr. J. Holmes Martin, professor of poultry husbandry and genetics of the University of Kentucky, as director of the new Regional Poultry Research

Laboratory at East Lansing, Michigan, is announced by Dr. Mohler, Chief of the Bureau of Animal Industry. Dr. Martin has for 21 years served on the staff of the University of Kentucky, is a graduate of Purdue University,

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holds a master's degree from the University of Kentucky and a doctor's degree from the University of Wisconsin. He is the author of numerous scientific papers and publications in the field of poultry husbandry, was for several years editor of Poultry Science and has served on numerous nation-wide committees of the industry. Dr. Martin's appointment becomes effective January 3.

Mechanical Crop Pickers "When the Rust brothers' invention of their mechanical Crop Pickers cotton picker first got into the news there was loud and widespread discussion of its possibly revolutionary consequences," says an editorial in the Baltimore Sun (October 25). "People pointed out that in a little more than seven hours it could do the work that a hand picker required five weeks to do, and that general use of the machine might displace 75 percent of the agricultural labor of the southern cotton lands...Now from Chicago comes the report that the Middle West is concerned about the effects of the increasing use of a corn-picking machine. It is said that each of these devices displaces three hand pickers and it is estimated that 65,000 of them are now in use...Already it is being used far more extensively than the cotton picker is, and apparently it does a more efficient job. While everybody was considering the future of the southern agricultural worker and of cotton, and was thinking up ways of easing the shock, that shock came in the Middle West and the corn fields, and without any widely publicized prophecies, laments and protests. All of which suggests that no matter what efforts are made to curtail or control technological changes, they will come about anyway, and if not in the field predicted, then in another, and usually without any regard for immediate effects..."

Native Game Preservation Millions of dollars now spent on the importation of foreign species of wildlife should be spent on the improvement of native habitat, thus preserving the American species, the National Association of Audubon Societies was told recently. Dr. Ralph T. King, director of the Roosevelt Wildlife Forest Experiment Station of the New York College of Agriculture, told the conservationists that foreign species were more of a pest than an asset and urged them to combat the efforts of enthusiasts who seek the introduction of "exotic" species of game birds and other birds. Dr. King took issue with those who believe the introduction of foreign species reduced hunting pressure on native stock, declaring that new game stimulated interest in hunting. Native game has been reduced, he observed, by the over-shooting by "an enormous army of licensed hunters." He said it would be cheaper to preserve and increase native wildlife than to replace depleted stock with exotic types. (New York Times.)

Stedman Resigns Alfred D. Stedman, director of the information division of the Agricultural Adjustment Administration and an assistant AAA administrator for five years, announces his resignation, effective January 1, to return to newspaper work. Stedman said he has been requested to continue with the AAA until January 1 "to help through its period of reorganization." (Washington Post.)

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Vol. LXXI, No. 19

Section 1

October 27, 1938

**WALLACE ON
TWO-PRICE
CROP PLAN**

The two-price system by which the Department of Agriculture hopes to aid in disposing of surpluses is an emergency action without relation to, and not designed in any manner to supplant, the regular agricultural program, Secretary said yesterday at a press conference. President Roosevelt and Mr. Wallace held a long private talk on the proposed method of taking some crop surpluses off the regular markets and selling them at cut-rates to persons who otherwise presumably could not purchase them. Mr. Wallace was reticent about the two-price program, declining to state what fields of agricultural produce might be affected by it, except for those already in the picture. The government now is attempting to export 100,000,000 bushels of wheat in the current fiscal year by means of granting export subsidies to span the gap between the controlled domestic price and a lower world price, and it has started preliminary studies looking toward subsidizing sales of cotton goods and grapefruit in the domestic market. However, Secretary Wallace said that no plan had been evolved for carrying out the domestic two-price system. The program probably would involve cooperation by growers, railroads and labor in putting surpluses on the market, Mr. Wallace said. He indicated that a sample method of operation would be worked out by a committee now studying the cotton-distribution problem. (New York Times.)

**U.S. HEALTH
PROGRAM**

Representatives of federal, state and local governments told the American Public Health Association yesterday that the nation is about to begin the largest experiment in health improvement in history. The speakers outlined a program including research and treatment of every disease from the common cold to cancer and the use of tax funds where necessary to correct the ailments of persons too poor to afford medical care, or the borderline income cases who regard it as too much of an expense. Dr. Abel Wolman, new president of the association, declared that the purpose of the new health plan is to bring medical care not only to the very poorest portion of the population, but also to "that great mass of people who are too inherently honest to call a doctor because they know they cannot pay him." Dr. Thomas Parran, surgeon general of the U.S. Public Health Service, declared that the health drive now in prospect, which will be a permanent undertaking, is "the first large-scale effort to shorten the lag between what medical and public health workers know and what we actually do" in the treatment of disease. (Associated Press.)

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Poultry
Articles

Poultry Tribune (November) contains "Why More Eggs--and From Where?" the first in a 4-article survey of the poultry industry. An editorial note says: "This is the first of a series of articles by two economists (E. L. Warren and W. D. Termohlen, Agricultural Adjustment Administration) who are employed by the Federal Government and therefore are in a position to study all angles of the poultry industry. The three articles which will follow are: 'Egg Demand and Income are Partners,' 'Have We Neglected Poultry Meat?' and 'The Next Ten Years--What's Ahead?'"

Orchard
Heaters

H. B. Walker, California Experiment Station, is author of "Orchard Heater Investigations" in the California Citrograph (November). He says in summary: "(1) That no new types of orchard heaters are yet available at a cost comparable to present distilling types which will be materially better than the more modern existing types when judged from a smoke output standpoint. It should be kept in mind that the more modern commercial types can be operated within the smoke ordinance tolerances only if kept clean, burned at the proper rate and if reasonably good grades of fuels are burned. (2) The pour back problem with distilling type heaters is still unsolved. (3) Heaters which show promise in solving the smoke problem but which are almost certain to be higher in first cost are the return gas distilling type and the atomizing type of heaters. The former principle can be adapted to present distilling heaters while latter shows more promise in utilizing the poorer than average orchard heater fuels without smoke or soot problems. (4) Drip heaters which will operate successfully on the poorer grades of orchard heater fuels have not yet been developed although drip heaters are available which perform satisfactorily with better than average quality fuels."

Cure for
Pellagra

"The recent discovery that nicotinic acid, a chemical found in liver, red meats and fish, is a specific cure for pellagra, poor man's disease of the South, is also revealing secrets of fundamental life processes and opening up new vistas toward the understanding of the nature and treatment of other serious diseases, the National Academy of Sciences was told recently at its autumn meeting," reports William L. Laurence in the New York Times. "Nicotinic acid, a constituent of the vitamin B-2 complex, has been known for more than 60 years as a common chemical constituent of nicotine, but not until a year ago was it found that it is the very drug for which suffering humanity in the South and other parts of the world has been waiting... Cures of the disease with nicotinic acid were described at the meeting by Dr. David T. Smith and Susan Gower Smith of Duke University... Not only does nicotinic acid offer the definite promise because of its cheapness and availability as a by-product of tobacco, one of the South's principal products, it was pointed out; the elimination of the disease will also yield incalculable economic benefits to the Southern States in restoring the thousands of sufferers to a life of usefulness and productivity..."

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World Trade
Barriers

The United States Chamber of Commerce urged recently that the approaching Pan-American Conference at Lima, Peru, take steps to halt inroads of non-American countries into this hemisphere's foreign trade through the use of barter agreements and manipulated currencies. It made public a report by the Foreign Commerce Department Committee, which pointed out that at the Montevideo conference in 1933 Secretary of State Hull took the lead "in having the American nations agree to adhere to the principle of quality of treatment, particularly through inclusion of the unconditional most-favored-nation clause in treaties and agreements." The committee said the United States had adhered to this program in its reciprocal trade pacts. "It is highly essential," it added, "that once again at Lima major emphasis be placed upon the importance of adherence to and strict observance of the principle of equality of treatment..." (Associated Press.)

New Standard
Barred Rock

"The poultry industry has been given a new Barred Plymouth Rock by the official American standard-making body, the American Poultry Association," says Emil G. Glaser in Country Gentleman (November). "In the future, in place of two varieties of Barred Rocks--light and dark--there will be but one. This new Barred Rock, a happy medium between the two varieties, calls for a male which is 50-50 in width of dark and light bars, and a female that is 60 percent wide in its dark bars and 40 percent wide in its light bars, or 60-40...Practical breeders and the hatching industry had long been fighting for the new Barred Rock. Listing of light and dark varieties resulted in confusion among flock owners, and as a consequence the popularity of the variety had suffered in recent years..."

Stallion and
Jack Report

A noteworthy increase in the number of stallions and jacks licensed for public service in recent years is announced by S. R. Speelman of the Bureau of Animal Industry, who has prepared a mimeographed report, "Stallion Enrollment and the Horse-Breeding Situation." During the three years 1935, 1936 and 1937 the number of stallions licensed for public service in 22 states having enrollment laws was 18 percent greater than for the previous three-year period, the report shows. The increase for the last three years is a continuation of an upward trend that began in 1933 and was especially prominent in the draft classes. This trend toward more stallions of the draft breeds again emphasizes the fact that horse breeders are primarily interested in the production of work stock, says Mr. Speelman. The increase in numbers of licensed stallions during the last three years, he adds, occurred chiefly in the purebred classes. "This is a reversal of the trend for the previous three-year period," he states, "and, if the present use of purebred stallions continues, it should result in a gradual improvement in our national work-horse stock." The number of jacks licensed for public service during the last three years was 7 percent greater than the number licensed in the previous three years. Unlike the trend in stallions, the gains in jack enrollments were greater in the grade, scrub, and mngrel class, with the exception of one year.

October 27, 1938

New Model Farm Co-ops . . . The Farmer's Digest (November) contains "Farmers' Cooperatives--New Model" (reprinted from Farm and Ranch) by C. E. Bowles, Texas Extension Specialist in Cooperative Marketing. "There is evidence on every side that a new order has come about in the field of cooperative marketing," it says. "The old cooperative pattern, dominated by ambitious and spectacular plans for handling farm commodities over a dozen or more states, is being replaced by a new design. The new model cooperative is local in its scope and performs some needed services for its members, such as grading, packing, ginning, processing, assembling, storing, distributing and marketing. The typical cooperative of 1938 has an average of less than 200 members and serves a comparatively small area, usually a single community. Its principle function is to increase the market value of the products of its members, thereby securing for them a larger share of the price finally paid by the consumer... The trend over the entire field of cooperative marketing in Texas seems to be definitely away from the big centralized organizations and toward strong associations of neighbors, each group retaining the maximum of independence and local control. These grower-owned cooperatives perform those services which they can do efficiently and, as need arises, the local associations federate to provide still larger services for their members."

Gov. Aid for Rural Schools Floyd W. Reeves, Chairman of the National Advisory Committee on Education; writes on "Federal Aid for Rural Schools" in Nation's Agriculture (November). He says in part: "Grants to the states to help them maintain schools would begin next year at \$40,000,000 and increase \$20,000,000 a year for five years. These grants would be divided among the states on the basis of their financial needs. Each state accepting the grants would be required to divide them among the local school districts in such a way as to lessen most effectively the inequalities of educational opportunity. Under this requirement, most states would distribute the funds principally to rural school districts, where they are needed most. The second largest series of grants recommended by the committee would start next year at \$20,000,-
^{and increase to \$30,000,000} the second and following years. These grants would be for school building construction, particularly the construction of community school buildings in rural areas. The committee recognized that it will be necessary to continue one and two room schools in many rural areas for a long time, but it also was convinced that there are many areas where redistricting and some consolidation of schools on a community basis would be highly desirable. The school building grants will provide part of the funds necessary for new buildings. Another series of grants of special interest to rural people is a proposed fund for rural library service, beginning at \$2,000,000 a year and increasing to \$6,000,000 a year. In most states there is little or no free public library service available outside of the towns and cities. In a few instances, promising state-wide systems of library service have been developed. The purpose of the proposed library grants is to make this progress more general in the interest of the rural people."

DAILY DIGEST

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Section 1

October 28, 1938

INCOME AND
EMPLOYMENT

The national income increased in September for the fourth consecutive month. Unemployment dropped by 548,000, from an estimated 11,087,000 in August to 10,539,000. Approximately 440,000 persons were re-employed in nonagricultural occupations between August and September, in addition to nearly 200,000 who had returned to work between June and August. Income payments to individuals rose to 83.3 percent of the 1929 level. The September index was 2.9 points above the low point for the year, but 3 percent below the 1937 peak. These reflections of accelerating business revival came yesterday from the Department of Commerce, the Department of Labor and the American Federation of Labor. (Washington Post.)

NATIONAL
HEALTH PLAN

"The new \$850,000,000 annual plan for national health, now being formulated by the Federal Government, was endorsed at Kansas City last night by the American Public Health Association," reports Hugh O'Connor in the New York Times. "The endorsement was declared by leaders among the delegates to have made medical history in recognizing that organized public health service now steps deliberately beyond prevention of disease into the treatment of disease... The next move is scheduled for Washington next Monday. The President's technical committee and its parent body, the interdepartmental committee to coordinate health and welfare activities, will begin a series of conferences to map this new deal in public health..."

SCIENCE
EXHIBIT

Malcolm Kerlin, assistant to Secretary of Commerce Roper, yesterday announced a public scientific demonstration by Ernest L. Foss, of General Motors Research laboratories, at 4:30 p.m. today at the Commerce Auditorium. Foss will demonstrate wool made from skim milk; glass made from sawdust; and silk of the finest texture which never saw a silkworm. Kerlin said that "although many of us compliment ourselves on thinking we have reached an outstanding peak in education, our American research laboratories feel we have hardly scratched the surface." (Washington Post.)

BOTANIC
MUM SHOW

The Botanic Garden will have its "mum" show ready by Sunday when there will be on display 1,500 pots, with three plants to a pot. The plants will be on exhibition daily, including Sundays, from 9 a.m. until 4 p.m. in both wings of the main conservatory between Maryland and Independence Avenues (Washington). Several night shows will be arranged later. (Washington Star.)

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Yearbook
Review

"The United States Department of Agriculture's 1938 Yearbook of Agriculture, 'Soils and Men,' probably may be labeled the most complete and thorough volume of facts and interpretations ever published, insofar as the innumerable elements centering around our soil problems are concerned," says Better Crops With Plant Food (October). "The outstanding contributions of more than 100 authors who collaborated in bringing out the present status of soil research make this a valuable and almost indispensable publication to those concerned with the soil of the country. This yearbook is one of a series designed to promote common understanding of modern agriculture from the scientific, practical, social and economic aspects...The present yearbook is a worthy companion to the last several volumes, each dealing very completely with a phase of agriculture. These books are a distinct contribution to our agricultural literature and reflect great credit to those responsible for their conception and preparation."

Unified Corn
Breeding

"Among research workers in agricultural sciences, the federal-state corn breeding investigations are regarded as a model for unified cooperative programs for increasing our knowledge of crops and for improving them for use on farms," says Ohio Farmer (October 22). "...Inbred line 4-8, developed by the Bureau of Plant Industry, from the Lancaster Sure Crop variety of Pennsylvania, is now used widely in putting together hybrids for Ohio farmers. Ohio inbred 51 is used to give sound, rot-resistant grain to hybrids being developed in other states. Iowa and the Bureau of Plant Industry developed the inbred lines used in Iowa Hybrid 939, now widely used in Ohio. Another leading hybrid is U.S. 65, whose pedigree is (51x48) X (Hyx540). Inbred line 51 was originated at the Ohio Experiment Station, 4-8 by the Bureau of Plant Industry from a Pennsylvania corn, 540 also at Arlington, Virginia, by the Bureau of Plant Industry from an Illinois corn, and Hy in the Bureau of Plant Industry investigations in Illinois. Through this kind of cooperative federal-state corn breeding programs seed producers and users in Ohio are assured of having at early dates new and superior hybrids with definite, known pedigrees."

Michigan Crop
Uses Research

"The recent appointment of two scientists to do research work marks the beginning of the program at Michigan State College," says an editorial in Michigan Farmer (October 22), "made possible through the use of the \$500,000 Rackham Foundation earnings, to seek new uses for Michigan crops in industry and new agricultural usage. Dr. Paul W. Margal will study the chemistry and chemical composition of alfalfa and sweet clover to determine possible uses of these plants for making plastics. Dr. Herald G. Petering will work on the development and use of materials derived from various crops, giving special attention to the usage of materials for applying to vegetation in the form of sprays to reduce transpiration losses. Michigan farmers will follow their results with keen interest."

Speed in Farming

"The future years likely will witness a gradual upward evolution in the speeds at which farm machinery can be safely operated," says Implement & Tractor (October 15).

"The industry's engineers know how to do it, but it won't be any rapid development. Manufacturing problems, as well as engineering ones, are involved. Machines must be built in quantity if prices are to be kept down. There may be considerable compromise for a few years in order that machines can be built to benefit the greatest number at the lowest possible price. Eliminating the lag between the speeds of tractors and implements thus will be gradual, except as rubber cushioning and other possible new factors for removing strains may expedite the development."

Farm Fire Protection

"Farm buildings need fire protective construction more than city buildings because a farm fire is harder to stop," says the Prairie Farmer (October 22). "That is the expert opinion of Wallace Ashby, Chief of the Division of Structures, U.S. Bureau of Agricultural Engineering. Speaking before the convention of the National Safety Council in Chicago, Ashby said: 'If a fire loss on a farm building exceeds \$50, it is almost invariably a total loss.' Ashby predicted a large amount of construction on farms in the near future to offset depreciation in recent years of abnormally low income. He urged that new buildings be fireproofed according to modern building plans supplied by the U.S.D.A. and available through state extension services."

Hogs Harvest Sorghum Crop

Nebraska Farmer (October 22) says: "Hogs may be turned into the standing grain sorghums and do a first-class job of harvesting both the grain and the stocks. To Bill Loeffel, of the animal husbandry department, Nebraska College of Agriculture, goes credit for developing this labor-saving method of harvesting. In a 24-day test in September, with 6 lots of 90-pound pigs running in as many different plots of grain sorghum, Loeffel learned that an acre of grain sorghum hogged down, with a protein supplement added, produced 400 pounds of pork. The larger yield of sorghums as compared to corn under similar crop conditions will more than offset the difference in feeding value between the two grains. Corn grown adjacent to the sorghum plots did well to produce over 300 pounds of grain per acre in the tests while the sorghum produced 400 pounds of pork. Of the sorghums, the most palatable was Sooner Milo. The Early Kalo lot, with cottonseed meal and tankage as supplements, made the largest daily gain, 1.77 pounds. In the hogging down method of harvesting, there is considerable shelling off of the sorghum grain. To save waste, the hogged-down plot makes an ideal range for chickens or turkeys..."

Jersey Champion

Sybil Tessie Lorna, a 6-year-old Jersey cow bred and owned by L. A. Hulbert of Oregon, is the new 305-day champion of the dairy world. This cow, whose body weight is approximately 1,000 pounds, is the first cow of any breed to produce in excess of 1,000 pounds butterfat in 305 days, her recently completed record being 1,020.52 pounds butterfat, 17,121 pounds milk. (Hoard's Dairymen, October 25.)

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Frozen Food Publication Quick Frozen Foods. The Department Library has received the first three issues (August, September, October) of a new publication, Quick Frozen Foods. The articles in the October issue include: Enzyme Activity in Frozen Vegetables, by M. A. Joslyn, C. L. Bedford, and G. L. Marsh; Better Frozen Eggs for the Institutional and Manufacturing Industries, by Leo D. Ovsen; How to Operate a Refrigerated Locker Plant, by A. A. Geiger; Quick Frozen Foods for the World Armies, by M. T. Zarotschenzeff. There is also a Digest of Literature on Quick Frozen Foods, compiled by Carl R. Fellers. A note on America's Cook Book says: "For the first time, quick frozen foods are given a place in a cook book. In addition to 3,427 recipes, the book contains canning, preserving, menu making, table setting and service, herb gardening, how to buy--what to buy."

Turkey Size Preference (B.A.I.) H. L. Shrader, author of "Defects Cramp Turkey Sales" in the American Poultry Journal (November) reports: "Studies by the National Association of Chain Stores show that there is a definite size preferred by their clientele. For the housewife who patronizes the chain store markets, 73 percent of them preferred a dressed turkey to weigh from 8 to 13 pounds, 14 percent wanted a 14 to 15 pound bird and only 13 percent selected a bird over 16 pounds. The demand for quantities of this smallest type of bird is especially good around the Thanksgiving and Christmas holidays. The hotel and restaurant trade want the larger-sized birds, and although their demand for volume is not so great at any one time, their buying period extends over several months. In most markets the smaller birds command a premium in price at Thanksgiving and Christmas. Each grower should raise the type of turkey that gives him the most profitable outlet."

Wind Erosion in Great Plains The leading article in Scientific Monthly (November) is a 19-page illustrated paper by H. H. Bennett, Chief, Soil Conservation Service--Emergency and Permanent Control of Wind Erosion in the Great Plains. The last two paragraphs say: "Success in the Smoky Hill Project and many others convinces me that we can protect the Great Plains and continue to use a large part of it for ranching and farming purposes, if we will. Many areas, to be sure, must be retired and turned into grazing reserves, but this procedure also is needed in many other regions. The various grasses of the Plains must be brought into nurseries and cultivated to determine their practical possibilities as agents of conservation. Plant breeding must be carried on with the more promising native grasses, as well as with exotics. By co-operating with nature, treating the land according to its needs and adaptability, conserving rainfall and making every possible use of vegetative measures of control, we can solve the Great Plains problem. This, of course demands a permanent program, rather than dependence upon temporary measures which at best can only delay real achievement. The longer we delay permanent solution of the problem, the more difficult and costly it will be for either ourselves or our descendants to save and use the Great Plains."

Benjamin Schwartz, Bureau of Animal Industry, contributes an 11-page article, Animal Parasites Transmissible to Man, to this same periodical.